1. The most prevalent off-flavor in fluid milk is ________________.
   A) feed
   B) malty
   C) flat
   D) oxidized

2. Butter is made from milk and/or cream and must contain a minimum of ______ percent fat.
   A) 20
   B) 80
   C) 50
   D) 5

3. Osteoporosis may be reduced by consuming adequate quantities of milk and/or milk products. Osteoporosis is the ________________.
   A) development of a hard calloused layer of skin on the sole of the foot
   B) inflammation of the skin cells causing hair loss and scaling of the skin
   C) deterioration of the soft tissue in the retina, leading to blurry vision and poor eye sight
   D) loss of bone mass due to decrease in the bone matrix and minerals

4. A five day seven degree shelf life test does not check for ________________
   A) meaningful data for control applications
   B) lower variability among cartons of milk
   C) psychotropic bacteria reproduces at the this temperature
   D) the temperature at or near the maximum for milk storage

5. An example of an extra hard cheese is __________.
   A) ricotta
   B) parmesan
   C) brie
   D) muenster

6. The highest production month for ice cream is ________________.
   A) August
   B) September
   C) June
   D) March

7. The top ten milk producing states in the U.S. account for over ______ percent of the total milk production.
   A) 53
   B) 69
   C) 73
   D) 59

8. To remove fat from milking equipment an ________________ is used.
   A) alkaline cleaner in hot water
   B) acid cleaner in cold water
   C) acid cleaner in hot water
   D) alkaline cleaner in cold water
9. Rubber parts readily absorb __________ and need to be cleaned in an alkaline detergent.
   A  protein
   B  carbohydrates
   C  minerals
   D  milk fat

10. Total cheese production in the U.S. reached almost __________ pounds in 2015.
    A  20 billion
    B  15 billion
    C  12 billion
    D  20 million

11. The correct primary taste sensation/causal agent combination is ________________.
    A  salty-sugar
    B  sour-table salt
    C  sweet-lactic acid
    D  bitter-quinine

12. Pasteurization is the process of heating every particle of milk and milk product to the minimum required __________ and holding it continuously for the minimum required __________ in equipment that is properly designed and operated.
    A  time and temperature
    B  time and length
    C  temperature and length
    D  temperature and time

13. The ______________ is a test for rancidity.
    A  acid degree value
    B  cryoscope
    C  disc assay
    D  titratable acidity

14. Low-fat yogurt must have a minimum of ______ percent fat and a maximum of ______ percent fat.
    A  1, 3.25
    B  1, 4
    C  .5, 2
    D  .5, 2.5

15. The USDA food guide changed from a pyramid to a plate. When comparing the plate to the previous pyramid, __________ are not specifically represented by their own category.
    A  grains
    B  dairy
    C  meats
    D  vegetables

16. The most popular retail size container for fluid milk in the U.S. is a ________________.
    A  quart
    B  gallon
    C  liter
    D  half gallon
17. _______________ is not normally in the top 3 states in milk production per cow per year.
   A Indiana
   B Arizona
   C Colorado
   D Washington

18. Compared to a Holstein cow, the average Jersey cow produces ___________ on a per-gallon of milk basis.
   A more fat and total milk solids
   B more fat but less total milk solids
   C less fat but more total milk solids
   D less fat and total milk solids

19. Infectious mastitis microorganisms almost invariably gain entrance to the mammary gland via a _____________.
   A blind quarter
   B suspensory ligament
   C streak canal
   D caudal base

20. The two most common tests for determining milk quality are the ________________ test.
    A standard plate count and color
    B flavor and titratable acidity
    C somatic cell count and odor
    D somatic cell count and standard plate count

21. The largest increase in per capita consumption of all dairy products in the U.S. was that of ____________.
    A yogurt
    B low fat milk
    C cheese
    D ice cream

22. Adulterants of milk that are detrimental to human health are _____________.
    A proteins
    B pesticides
    C minerals
    D water

23. Five countries accounted for approximately _____ percent of the total U.S. dairy exports.
    A 69
    B 59
    C 39
    D 79

24. The major reason milk from cows treated with antibiotics must be withheld from the milk supply is because _________________.
    A antibiotics increase the somatic cell count of milk
    B antibiotics kill some of the good bacteria found in milk
    C some humans are sensitive to antibiotics
    D antibiotics cause an off-flavor in milk
25. _______________ dominate U.S. cheese production.
   A New York and Wisconsin  
   B Wisconsin and California  
   C Texas and Florida  
   D Texas and California

26. Approximately ______ percent of the total frozen dessert market is ice cream (both hard and soft).
   A 92  
   B 86  
   C 66  
   D 33

27. A bulk milk hauler detected a sour odor from the raw milk in a farm bulk tank. Upon further examination he/she is likely to find ________________.
   A butter particles floating on the milk  
   B a high freezing point of the milk  
   C a high titratable acidity  
   D the milk has been exposed to a sanitizer

28. The top three milk producing states for 2012 were __________________________.
   A California, Wisconsin, and New York  
   B California, Wisconsin, and Idaho  
   C Illinois, California, and Wisconsin  
   D Missouri, Illinois, and Wisconsin

29. The two main proteins in milk are ____________ and ____________.
   A casein, lactalbumin  
   B ascorbic, thiamin  
   C lactose, lactalbumin  
   D colgate, casein

30. To reduce the feed flavor in milk to acceptable levels, cows should be removed from the offending feeds a minimum of ________ hours prior to milking.
   A 6-8  
   B 4-6  
   C 2-4  
   D 1-2

31. The total supply of milk is directly influenced by the ____________.
   A prices paid to milk producers  
   B number of manufacturing plants  
   C amount of foreign exports  
   D cost of fat production

32. It requires ______ pounds of milk to produce one pound of butter.
   A 33  
   B 11  
   C 22  
   D 3
33. One objective of a Federal Milk Order is to ________________________________.
   A  prevent surpluses of milk in the market place
   B  assure that all dairy plants receive an adequate supply of milk
   C  assure consumers an adequate supply of pure, wholesome milk
   D  assure all dairy farmers an adequate income

34. Some soft serve frozen dairy products have replaced milk fat with ________________.
   A  peanut butter
   B  vegetable oil
   C  honey
   D  fruits

35. Cream cheese is different from cottage cheese in that ________________________________.
   A  cream cheese is made from cows’ milk and cottage cheese is not
   B  all of these are true for both cream cheese and cottage cheese
   C  cream cheese is an acid curd and cottage cheese is not
   D  cream cheese requires a started culture of bacteria and cottage cheese does not

36. The California Mastitis Test (CMT) asks that you use only the ________________.
   A  colostrum
   B  first stream during milking
   C  2nd stream during milking
   D  milk after dry-off

37. The flavors which cannot be detected by odor are ________________.
   A  high acid and rancid
   B  metallic/oxidized and malty
   C  bitter and salty
   D  feed and garlic/onion

38. The whey proteins in milk constitutes about ______ percent of the total protein found in milk.
   A  15
   B  10
   C  20
   D  18

39. A milking machine applies a ________________ to the end of the teat to remove milk.
   A  increased pressure
   B  vibration
   C  vacuum
   D  massaging action

40. Light whipping cream has a minimum of ______ percent milk fat.
   A  40
   B  35
   C  30
   D  18
41. Approximately _____ percent of today’s youth consume the recommended amount of dairy products?
   A 10
   B 50
   C 70
   D 30

42. The absence of ____________ in milk is not an accident, since they would catalyze oxidation, producing metallic or oxidized flavors.
   A boron and tin
   B zinc and brass
   C lead and casein
   D iron and copper

43. When a producer’s milk tests positive for a Beta Lactam drug, the authorities do not ________________.
   A immediately suspend the producers Grade A milk permit
   B forego permit suspension provided the milk is not sold as Grade A milk
   C investigate to determine the cause
   D enforce a penalty for the value of all the milk on the contaminated load, plus expenses

44. Cold storage of milk results in ________________.
   A stoppage of all bacterial growth
   B killing of all microorganisms
   C slowing of bacterial growth
   D killing of all bacteria

45. Cream is a liquid milk product separated from the fluid milk that must contain a minimum of ______ percent fat.
   A 4
   B 10
   C 14
   D 18

46. About _____ percent of the calcium available in the food supply is provided by milk and milk products.
   A 86
   B 66
   C 96
   D 76

47. For the maximum intake of calcium, one should consume ____________ milk.
   A 1 percent
   B whole
   C 2 percent
   D skim

48. Mozzarella can have up to ______ percent moisture content and a maximum fat content of 45 percent.
   A 45
   B 60
   C 39
   D 50
49. Federal definitions and standards of identity specify that whole milk contain not less than ______ percent milk fat and ______ percent solids-non-fat.
   A  3.25 , 8.25  
   B  3.00 , 8.25  
   C  3.50 , 8.00  
   D  3.50 , 8.50  

50. The titratable acidity of milk that has been cooled properly usually ranges from __________ percent.
   A .13 to .17  
   B 1.3 to 1.7  
   C .26 to .30  
   D .013 to 0.17  

51. The Grade A Pasteurized Milk Ordinance (PMO) specifies requirements for the production of Grade A raw milk for pasteurization and is recommended by the ____________________.
   A United States Department of Agriculture  
   B Small Business Administration  
   C National Committee on Milk  
   D Food and Drug Administration  

52. The establishment of a federal Milk Marketing Order is generally initiated by _____________________.
   A dairy farmers, milk handlers and consumers  
   B United States Department of Agriculture  
   C dairy farmers, through their cooperative association  
   D milk handlers in the market  

53. Federal Milk Marketing Orders give ________________ an active voice in determining minimum milk prices through public hearings.
   A milk consumers  
   B milk handlers  
   C milk activists  
   D milk processors  

54. Under Federal Orders, dairy farmers receive their milk checks ________________.
   A weekly  
   B bi-monthly  
   C daily  
   D once or twice monthly  

55. One mechanism used by the USDA to remove surplus dairy products from the supply is the ________________ which subsidize manufacturers who sell overseas at a loss.
   A Commodity Credit Program  
   B Dairy Export Incentive Program  
   C Butter-Powder Formula  
   D Price Support Program  

56. The Federal Milk Orders of today are based on the Agricultural Agreement Act of _____________.
   A 1957  
   B 1947  
   C 1927  
   D 1937
57. A cow’s stomach has four compartments. The ________ stomach compartment has the primary function of absorbing water and other substances from the digested contents?
   A  omasum
   B  abomasum
   C  reticulum
   D  rumen

58. Although milk from the cow is processed, it is not an engineered or fabricated food and contains about ______ percent solids.
   A  13
   B  87
   C  76
   D  13.5

59. The ______ test is used to detect if milk has been pasteurized properly.
   A  phosphatase
   B  lipase
   C  coliform
   D  standard plate count

60. The practice that distributes milk payments among the producers within a specific Federal Milk Marketing Order is called ______________.
   A  differential pricing
   B  support pricing
   C  pool pricing
   D  classified pricing

61. Milk with an Acid Degree Value (ADV) of 1.0 or above will have a detectable ______ flavor.
   A  malty
   B  rancid
   C  fruity
   D  acidic

62. Today, an average dairy cow produces approximately ______ quarts of milk per cow annually.
   A  6,500
   B  5,500
   C  6,800
   D  8,800

63. Milk sold through commercial outlets is certified to be from herd’s free of ________________.
   A  Bovine Somatrophin (B.S.T.)
   B  Displaced Abomasums (D.A.)
   C  Broken Udder Suspensory Ligaments (BSL)
   D  Tuberculosis (TB)

64. Wisconsin usually accounts for nearly ______ percent of the total cheese production in the U.S.
   A  22
   B  26
   C  16
   D  20
65. Milk with low total solids will produce a(n) ___________ off-flavor.
   A  malty
   B  acid
   C  flat
   D  salty

66. The national average milk production per cow is approximately ________ pounds per year.
   A  24,400
   B  21,700
   C  17,700
   D  15,200

67. Farm marketing cooperatives have been in existence since the early _______.
   A  1800’s
   B  1700’s
   C  1980’s
   D  1900’s

68. To identify specific bacteria in a Standard Plate Count, a Preliminary Incubation Count is performed in
    which the sample is incubated for __________.
   A  18 hours for 55 degrees F
   B  18 hours for 55 degrees C
   C  32 hours for 48 degrees F
   D  48 hours for 32 degrees C

69. The fluid milk product accounting for the largest fluid milk sales is ______________ milk.
   A  whole
   B  reduced/low-fat
   C  nonfat
   D  flavored

70. The California Mastitis Test (CMT) should be read within ______ seconds after mixing.
   A  40
   B  20
   C  10
   D  30

71. The largest percentage of the United States milk supply is utilized in the production of ____________.
   A  cream and specialty products
   B  evaporated, condensed and dried milk products
   C  cheese
   D  frozen dairy desserts

72. The ____________ is the length of time after processing during which a dairy product normally remains
    suitable for human consumption.
   A  shelf date
   B  code date
   C  product life
   D  package date
73. Nonfat yogurt must have a maximum of ______ percent fat prior to the addition of bulky flavors.
   A .5  
   B 3.25  
   C 1  
   D 2

74. The hormone oxytocin is released by the ___________ gland. This release stimulates the mammary gland.
   A endocrine  
   B pituitary  
   C sweat  
   D hypothalamus

75. When cows have mastitis, the protein content of the milk may be higher, but the cheese yield is lower because of a decrease in the ___________.
   A alysine  
   B casein  
   C tryptophan  
   D whey

76. Low sodium cheddar cheese contains no more than _______ milligrams of sodium per pound of finished cheese.
   A 56  
   B 45  
   C 96  
   D 105

77. Cottage cheese from the grocery shelf must contain no less than ______ percent fat.
   A 4  
   B .5  
   C 1  
   D 2

78. A process that makes milk more easily digested by those with sensitive digestive systems is _________________.
   A evaporation  
   B ionization  
   C homogenization  
   D pasteurization

79. The actual cost of producing dairy products that is used in the Class III and IV pricing formula is called the ____________.
   A milk-feed price ratio  
   B make allowance  
   C Federal Order price  
   D cooperative bonus premium
80. When performing a California Mastitis Test (CMT) test milk from a normal quarter _____________.
   A forms small clumps in a moderate reaction
   B forms a gelatinous mass clinging together in a strong reaction
   C turns a deep purple color
   D flows freely without change in viscosity

81. Curd is the __________ cheese making process.
   A material found in the stomach of young calves, necessary for the
   B liquid portion at the bottom on the container, that is hard to dispose of, after the
   C region in the Middle East known for their
   D custard-like substance formed at the top of the container during the

82. The ______ or uniform price is determined by the proportion of the total delivery used in products of each class.
   A average
   B classified
   C parity
   D blend

83. A California Mastitis Test (CMT) test requires a sample of ______ cc’s of milk.
   A .5
   B 6
   C 2
   D 4

84. By using a ______ with plastic beads of varying density, nonfat solids in milk can be rapidly estimated.
   A lactometer
   B humidoscope
   C polyscope
   D hydrometer

85. An advantage of making processed cheese is its _____________.
   A better taste
   B marketability
   C extended shelf-life
   D all of these

86. Federal Milk Marketing Orders are ________________ programs that define the terms under which milk handlers within a specific marketing order purchase milk from dairy farmers.
   A voluntary
   B elected
   C mandatory
   D congressionally required

87. Rules developed by the______ _________________ are designed to protect the health and welfare of consumers.
   A United States Department of Agriculture (USDA)
   B Food and Drug Administration (FDA)
   C Future Farmers of America (FFA)
   D Protein and Lactose Organization (PLO)
88. Quality checks of Grade A milk is _____________________.
   A done by the milk processor
   B a responsibility of the health authority
   C the first consideration in pooling milk
   D a part of the testing by Market Administrators

89. A mixture of milk and cream containing minimum of 10.5 percent fat and a maximum of 18 percent fat is _________________.
   A heavy cream
   B light whipping cream
   C half-and-half cream
   D light cream

90. The total dollars a dairy has in assets divided by the number of cows determines the _____________________.
   A debt to asset ratio
   B total investment per cow
   C owner equity
   D debt per cow

91. Onion and garlic exposure is responsible for the garlic/onion off-flavor in milk, and is more prevalent in pastures during the _________________.
   A winter
   B spring
   C early spring and late fall
   D fall

92. Condensed milk on the grocery shelf may have _______________ added.
   A minerals
   B sugar
   C salt
   D cream

93. The ability of lipase to attack milk fat and produce a rancid off-flavor is enhanced by _________________.
   A exposing milk to sunlight
   B feeding cows moldy hay
   C excessive agitation of warm raw milk
   D poorly cleaned milking equipment

94. According to a report compiled by the Institute for Food Technologists, ________ is now America’s favorite at-home snack.
   A yogurt
   B cheese
   C ice cream
   D chocolate Milk
95. **Federal Milk Marketing Orders** provide or describe _________________.
   A milk purchased by dealers
   B milk sold by farmers
   C sanitary standards used for Grade A milk
   D payment made to milk producers for milk

96. **Salmonellosis infections** are most common in cows that have calved within ________.
   A 2 days
   B 50 days
   C 20 days
   D 10 days

97. An acceptable time/temperature combination for pasteurization of milk is _____________.
   A 145 degrees F for 15 seconds
   B 191 degrees F for 1 second
   C 201 degrees F for 1 second
   D 161 degrees F for 10 seconds

98. The **Federal Milk Marketing orders** were revised in ________.
   A 1995
   B 2004
   C 2002
   D 2000

99. Milk from countries with a somatic cell count above ________ cannot be legally shipped to the European Union (EU)?
   A 1,000,000
   B 200,000
   C 400,000
   D 750,000

100. The **pasteurized milk ordinance** regulates ________________ milk.
    A Grade A
    B Grade C
    C Grade D
    D Grade B

101. The most effective and economical means of reducing the exposure of cows to mastitis-causing microorganisms is to _____________________________.
    A wear rubber or plastic gloves during milking and disinfect the gloves between cows
    B isolate animals with clinical mastitis
    C disinfect or sterilize milking machine inflations between cows
    D use a bactericide for disinfecting the teats after milking

102. The cheese that has maximum moisture of 45 percent and a minimum of 45 percent fat and is a pasta filata cheese is _____________.
    A cheddar
    B swiss
    C mozzarella
    D provolone
103. The bacteria in milk which produces lactic acid responsible for the sour taste is ___________.
   A. Streptococcus
   B. Psychrophilic
   C. Coliform
   D. Streptococci

104. The ___________ legislation made farm cooperatives legal.
   A. Barkley Act
   B. Sherman Act
   C. Buckley Act
   D. Capper-Volstead Act

105. A state that is a net importer of milk not producing enough to fulfill the needs of their population is ___________.
   A. South Dakota
   B. Florida
   C. Oregon
   D. California

106. The check off funded ________________ mission is to enhance demand for U.S. milk products and ingredients by securing access and assisting suppliers to meet global market needs.
   A. U.S. Department of Agriculture Grading’s (USDA)
   B. Federal Milk Marketing Orders’ (FMMO)
   C. U.S. Dairy Export Council’s (USDEC)
   D. Dairy Management, Inc.’s (DMI)

107. The International Dairy Federation’s (IDF) mission is to promote ________________.  
   A. scientific, cultural & economic progress
   B. technical, scientific & industrial progress
   C. agricultural, technical & economic progress
   D. scientific, technical & economic progress

108. Federal Milk Marketing Orders are a mechanism for ________________.
   A. economical transportation of milk
   B. finding a market for every producer’s milk
   C. economical utilization of milk
   D. market stabilization

109. The ________________ is a voluntary program to help score your farm’s animal welfare practices against the industry recommendations. It is operating as a partnership of the National Milk Producers Federation and Dairy Management, Inc.
   A. Agriculture Animal and Plant Health Inspection Service (APHIS)
   B. National Dairy Check Off program
   C. Animal Welfare Act (AWA)
   D. National F.A. R. M. program (Farmers Assuring Responsible Management)
110. Milk is produced from female’s mammary glands. These mammary glands are examples of a __________ gland.
   A  excretory
   B  exocrine
   C  absorbatory
   D  adrenal

111. A form of mastitis that is hidden from sight is known as __________ mastitis.
   A  clinical
   B  sub-clinical
   C  infectious
   D  acute

112. When a producer’s three-month somatic cell count (SCC) rolling mean exceeds 400,000, a __________ request must be submitted to AMS in an effort to keep the milk eligible for export to the EU.
   A  premium denial
   B  degradation
   C  derogation
   D  re-inspection

113. Poor quality forage will cause a significant decrease in ____________.
   A  casein percentage
   B  bacteria counts
   C  fat percentage
   D  somatic count

114. The leading U.S. state in butter production is ________.
   A  Wisconsin
   B  New York
   C  Minnesota
   D  California

115. Vitamin ______ was first discovered in milk fat and is important for maintaining eyesight.
   A  C
   B  B
   C  D
   D  A

116. The four primary taste sensations are ____________.
   A  bitter, salt, sour, sweet
   B  burnt, bitter, salt, sour
   C  metallic, salt, sour, sweet
   D  bitter, metallic, sour, sweet

117. The top five states in the production of cheese accounted for almost ______ percent of the total U.S. cheese production.
   A  60
   B  80
   C  70
   D  50
118. The ______________ concentration in the bulk milk tank helps the producers monitor the efficacy of
their feeding programs.
A milk urea nitrogen (MUN)
B antibiotic
C somatic cell
D bacteria

119. The per capita consumption of reduced and low-fat milk averages ______ pounds/year.
A 32
B 85
C 45
D 50

120. To be labeled “made with organic ingredients” a dairy product must contain a minimum of ________ percent organic ingredients.
A 100
B 90
C 70
D 80

121. In ________ the Capper-Volstead Act gave cooperatives the right and power to organize producers of a
farm commodity.
A 1959
B 1729
C 1929
D 1829

122. Milk with extra water added to it can be detected by checking the __________ of the sample.
A titratable acidity
B acid degree value
C freezing point
D sediment content

123. As produced at the farm, milk from Holstein cows is expected to contain approximately ______ percent
milkfat and ______ percent nonfat milk solids.
A 2.7 , 8.7
B 8.7, 3.7
C 8.7 , 2.7
D 3.7 , 8.7

124. The state which is usually the leader in milk production per cow per year is ____________.
A Wisconsin
B Idaho
C California
D New Mexico

125. The fat in one serving of whole milk (8 ounces) provides _____ calories.
A 90
B 95
C 100
D 85
126. The main objection to dirt and milk stone on milker parts is it causes _____________________.
   A  poor appearance
   B  increased bacterial counts
   C  poor milker function
   D  vacuum fluctuations

127. A Milk Order, including pricing and other provisions, becomes effective only after approval of the _______________.
   A  milk processors
   B  dairy farmers
   C  Secretary of Agriculture
   D  consumers

128. Butter will begin to lose some of its natural flavor after __________ at refrigerated temperatures.
   A  1 year
   B  6 months
   C  2 years
   D  2 months

129. The two most important etiologic agents of mastitis are ___________________________.
   A  Pseudomonas aeruginosa and coliform bacteria
   B  Klebsiella and actinomycetes
   C  Streptococcus agaiaictae and Staphylococcus aureaus
   D  Streptococcus uberis and Streptococcus dysgapactiae

130. While milk fat tests are monitored by Federal Milk Market administrators, they do not check _______________.
   A  for Grade A milk shipped into a market from non-qualified producers
   B  how the milk is used
   C  the amount of milk sold
   D  the bacteria counts of milk

131. Dry milk can be stored for long periods of time provided it is _______________.
   A  in a cabinet
   B  in a sealed atmosphere of nitrogen or carbon dioxide
   C  in refrigerated vaults
   D  at temperatures above 150 degrees

132. According to the Food & Nutrition Board of the National Academy of Sciences, all people need at least __________ milligrams of calcium per day.
   A  100,000
   B  10,000
   C  1,000
   D  100

133. USDA test milk in their laboratories for Federal Milk Market Orders to _______________.
   A  provide data for the US Statistical Reporting Service
   B  make sure food and drug laws are followed
   C  assure safety of the supply
   D  provide accurate accounting of milk solids sold
134. Whole milk contains ________ percent protein.
   A  4.0-4.99  
   B  1.0-1.99  
   C  3.0-3.99  
   D  2.0-2.99  

135. The minimum fat content of cheddar cheese is ____________ percent.
   A  50  
   B  33  
   C  20  
   D  40  

136. HACCP is a voluntary management tool that milk plants participate in for the control of identified hazards and is based on ______ operating principles.
   A  7  
   B  3  
   C  5  
   D  10  

137. The best control of contagious mastitis is ________________.
   A  germicidal teat dip  
   B  antibiotic teat dip  
   C  iodine teat dip  
   D  barrier teat dip  

138. Operating costs for Federal Milk Orders are paid by the _____________________.
   A  milk handlers  
   B  Federal Government  
   C  milk producers  
   D  State Department of Agriculture  

139. The milking procedure recommended to flush potential mastitis-causing bacteria from the teat canal, allow you to observe early signs of clinical mastitis and help promote milk letdown is ________________.
   A  forestripping  
   B  predipping  
   C  towel drying  
   D  postdipping  

140. Milk is the only source of _______________ in nature.
   A  lactose  
   B  calcium  
   C  fatty acids  
   D  phosphorous  

141. The cheese price series is based on United States cheese plants that make 80-85 percent of the bulk cheddar. This series is called _________________.
   A  NASS Cheddar Cheese Price  
   B  U.S. Cheddar Cheese Price  
   C  NASS Swiss Cheese Price  
   D  NASS Cheese Price
142. To make Mozzarella cheese the pasteurized milk is curded at ________ °F.
   A 88
   B 145
   C 190
   D 45

143. USDA projects that the number of dairy cows will ______________ by 2018 while milk production increases to 227 billion pounds.
   A remain constant
   B gradually increase
   C gradually decrease
   D significantly increase

144. A CMT test result that indicates a somatic cell count of 400,000 to 1,500,000 will produce a ________________.
   A slight precipitate which tends to disappear
   B distinct precipitate, but no gel
   C viscous gel which adheres to paddle.
   D mixture which thickens with slight gelation

145. Mastitis in milk ________________________________.
   A decreases calcium content
   B has a direct effect on cheese yield
   C increases protein content
   D may cause increased rancidity

146. Federal Milk Orders only regulate ____________.
   A farmers
   B retail store owners
   C truckers
   D handlers

147. The rules adopted by states to govern the production, processing, packaging and storage of Grade A milk are based on the ________________________.
   A Pure Milk Act of 1937
   B Code of Federal Regulations
   C Pasteurized Milk Ordinance and Code
   D USDA Rules and Regulations

148. Approximately 18 percent of the total annual milk supply in the U.S. is to make ____________.
   A yogurt
   B ice cream
   C butter
   D cottage cheese

149. One gallon of milk weighs approximately ____________ pounds.
   A 7.8
   B 8.6
   C 5.5
   D 10.1
150. Dry cream is produced by removing the water from pasteurized milk and/or cream. Dry cream is required to contain a minimum of _______ percent fat.
   A  18  
   B  40  
   C  75  
   D  30  

151. Milk marketed as low-fat milk has no more than _______ percent milk fat.
   A  3.25  
   B  1   
   C  2   
   D  2.5 

152. The microbiological standard for Grade A raw milk from a single producer is ____________ bacteria per millimeter of milk prior to co-mingling with milk from other producers.
   A  150,000  
   B  200,000 
   C  100,000 
   D  50,000  

153. A good nutritional strategy to maintain milk production in hot weather is to ____________ in the ration.
   A  add more fat  
   B  increase protein concentration  
   C  add more water  
   D  feed more grain  

154. The bulk milk hauler plays a critical role in milk handling but ________________ is not one of their duties.
   A  examining the appearance of milk  
   B  making sure equipment has been cleaned correctly  
   C  checking milk temperature  
   D  collecting a representative sample to be used for testing  

155. Federal milk marketing orders regulate the sale of ____________ milk.
   A  Grade A  
   B  Grades A, B and C  
   C  Grade C  
   D  Grade B  

156. The major cause of a salty flavor in milk is _________________.
   A  bacterial action  
   B  the large intake of salt by the cow  
   C  a mastitis infection  
   D  excessive sunlight exposure  

157. If the dairy ingredients have a fat content of 10 percent or more, the specified pasteurization temperature shall be increased by_____? F.
   A  5  
   B  1  
   C  2  
   D  3
158. Specific gravity of milk at 60ºF is ________ m/s2.
   A  1.032
   B  1.052
   C  1.022
   D  1.042

159. The exposure of hot milk or milk products to a reduced pressure to remove volatile substances, especially those that enter the milk from feed, is called ____________.
   A  vacuumization
   B  vaporization
   C  infusion heater
   D  volume reduction

160. The decision of a milk hauler to accept or reject milk at the farm ________________.
   A  is made the day before pickup is scheduled
   B  all of these
   C  depends on a knowledge of milk quality and ability to smell off odors
   D  must always be confirmed by acidity test

161. Heavy cream (whipping cream) contains a minimum milk fat of ____________ percent.
   A  36
   B  18
   C  10
   D  30

162. HACCP stands for ________________.
   A  Hazard Analysis and Critical Control Points
   B  Help Animals in Confined Conditions and Preserves
   C  High Altitude Computer Control Protocol
   D  High Aptitude Critical Consideration and Punctuality

163. A ______ cup is a cup with fine wire mesh on top used to detect the presence of abnormal milk.
   A  striated
   B  streak
   C  mesh
   D  strip

164. The United States Government purchases surplus ______________ from the commercial market under the dairy price support program.
   A  fluid milk products, butter, cheese
   B  butter, evaporated milk, ice cream
   C  ice milk, yogurt, cottage cheese
   D  cheese, nonfat dry milk, butter

165. Dairy cows need a ______ day dry period for rejuvenation of secretory tissue and restoration of body condition.
   A  90
   B  60
   C  120
   D  30
166. Protein and amino acids go hand in hand since __________________________.
A  proteins link to amino acids in bone formation
B  proteins are the building blocks of amino acids
C  amino acids are the building blocks of protein
D  amino acids and proteins need to be found in a 2:1 ratio in all diets

167. Dry cream is produced by removing the water from pasteurized milk and/or cream. Dry cream will have a maximum milk fat of _______ percent for economic reasons.
A  40
B  75
C  30
D  18

168. By FDA definition, an imitation product does not have to _______________ the real product is represents.
A  have the same nutritional value as
B  taste like
C  looks like
D  imitation products are not regulated by the FDA

169. A rancid flavor in milk is often caused by _____________________.
A  extreme agitation of raw milk
B  feeding haylage
C  storing milk in the sunlight
D  feeding high moisture corn

170. A consumer found an off-flavor in milk packaged in transparent plastic jugs exposed to high intensity fluorescent light. The off-flavor probably was ____________.
A  malty
B  oxidized
C  rancid
D  high acid

171. A cheese which did not originate in Italy is _________________.
A  muenster
B  parmesan
C  provolone
D  mozzarella

172. The Standard Plate Count (SPC) has a prescribed incubation time of _____ hours at _____ °C.
A  24 at 32
B  48 at 32
C  48 at 0
D  12 at 45

173. Mozzarella makes up nearly______ percent of the total cheese production in the U.S.
A  28
B  43
C  34
D  22
174. The first milk produced after parturition is called ____________________.
   A  coliseum  
   B  serial  
   C  celestial  
   D  colostrum

175. The state not in the top for production of cheese is ____________.
   A  New York  
   B  Minnesota  
   C  Wisconsin  
   D  Idaho

176. One 8 oz. serving of milk has about _______ milligrams of calcium.
   A  150  
   B  200  
   C  90  
   D  250

177. Milk used to make ice cream would be priced in a Federal Order class ___________.
   A  IV  
   B  II  
   C  I  
   D  III

178. An example of an unripen variety of cheese is ____________.
   A  parmesan  
   B  bleu  
   C  cream  
   D  brie

179. Milk is ____________ to prevent milk fat from separating itself from the fluid portion of the milk.
   A  pasteurized  
   B  homogenized  
   C  sterilized  
   D  thermalized

180. Dairy farmers receive _____ percent of the retail sale price of a half-gallon of milk?
   A  6  
   B  46  
   C  26  
   D  16

181. Milk from cows with high somatic cell counts may have decreased levels of ________.
   A  whey protein  
   B  trace minerals  
   C  casein  
   D  butterfat
182. Milk that has been ultra-pasteurized is heated to ______ ?F or above for ______ seconds.
   A  280 , 2
   B  212 , 3
   C  260 , 2
   D  191 , 2

183. Ice cream must weigh a minimum of ______ pounds to the gallon.
   A  4.5
   B  3.5
   C  5.25
   D  5.0

184. Under Federal Milk Marketing Orders Class III milk is used to make _____________________.
   A  ice cream
   B  butter and dry milks
   C  ripened cheeses
   D  cottage cheese

185. Dry milk must have less than ______ percent moisture by weight.
   A  10
   B  5
   C  15
   D  25

186. There are ____________________ Federal Milk Marketing Order in the United States.
   A  more than 30
   B  ten
   C  50- one per state
   D  48- number of states within the continental limits

187. When it comes to fertilizing fields, “secondary nutrients” are _____________________.
   A  nitrogen, phosphorus, potassium
   B  calcium, nitrogen, and water
   C  calcium, sulfur, and magnesium
   D  potassium, phosphorus, and zinc

188. A Federal Milk Marketing Order is not authorized unless two-thirds of the affected __________________ milk from/to the proposed marketing area approves its implementation.
   A  dairy cooperatives supplying
   B  cheese processors using
   C  handlers processing
   D  producers supplying

189. Body condition scoring is one way to measure cow health. The ideal score for a milking cow is ________.
   A  3
   B  5
   C  1
   D  4
190. Milk becomes the property of the buyer once _____________________.
   A  the transport truck leaves the farm
   B  the transport truck reaches the plant
   C  it is loaded into the transport truck on the farm
   D  it is unloaded into the processor’s bulk tanks

191. The world’s leading dairy exporter is _________________.
   A  United States
   B  European Union (EU)
   C  New Zealand
   D  China

192. Lactose is the principal ____________ in milk.
   A  fat
   B  carbohydrate
   C  protein
   D  mineral

193. Cheddar cheeses sold in the United States, made from unpasteurized milk, must be ripened at least _____ days.
   A  120
   B  150
   C  30
   D  60

194. Milk that is used to make butter is class_______ milk under Federal Orders?
   A  III
   B  II
   C  IV
   D  I

195. The average per capita consumption per year of _____________ is about 32 pounds.
   A  butter
   B  fluid milk products
   C  cheese
   D  ice cream

196. For each one percent of water added to milk, the freezing point will increase by _____________.
   A  0.060 degrees C
   B  0.006 degrees C
   C  0.002 degrees C
   D  0.004 degrees C

197. Federal Milk Markets Orders do not _________________.
   A  impose sanitary restrictions on production
   B  become legal instruments
   C  produce a uniform system of classified pricing
   D  guarantee producers a market
198. Fluid milk accounts for ______ percent of the U.S. milk supply.
   A 20
   B 22
   C 15
   D 25

199. The somatic cell count standard for Grade A raw milk is __________ or less per milliliter of milk.
   A 1,500,000
   B 500,000
   C 1,000,000
   D 750,000

200. Mastitis has severe economic consequences. The high somatic cell count causes a decrease in cheese yield and the bacteria causes a ______________ in lactose (milk sugar).
   A denaturation
   B gram-negative infection
   C decrease
   D increase

201. The Standard of Identity for ice cream requires that it contain a minimum of ______ percent milk fat.
   A 12
   B 14
   C 10
   D 16

202. Cottage cheese is a soft, unripened cheese with approximately ______ percent moisture content.
   A 40
   B 20
   C 80
   D 60

203. Milk contains all the known vitamins and is an especially good source of ______________.
   A riboflavin
   B cyanocobalmin
   C thiamine
   D ascorbic acid

204. Potassium can significantly reduce the absorption of ______________ found in dairy rations.
   A phosphorus
   B calcium
   C magnesium
   D copper

205. Cooperatives Working Together (CWT) is the ______________ program that aims to strengthen and stabilize milk prices by balancing supply and demand.
   A federal-funded
   B farmer-funded
   C state-funded
   D none of these
206. HACCP inspects each dairy farm a minimum of ________________.
A  every 6 months
B  once a year
C  once each month
D  every 2 years

207. Some dairy food products have a “REAL” seal on the package. This seal may not be placed on a package unless the product is _________________.
A  produced from NON-organic sources
B  produced from U.S. milk
C  meeting federal standards
D  imitation or substitute foods

208. Chemical sanitizers containing __________ are most widely used for sanitizing milking equipment.
A  iodine
B  saline
C  bromine
D  chlorine

209. To properly sanitize milk lines and equipment, water must be circulated in place (CIP) at a minimum temperature of ________ for least 5 minutes.
A  65 degrees C (160 degrees F)
B  55 degrees C (140 degrees F)
C  87 degrees C (190 degrees F)
D  77 degrees C (170 degrees F)

210. Average milk prices are the lowest in the ____________.
A  spring
B  winter
C  fall
D  summer

211. About _____ percent of all the milk produced by U.S. dairy farmers is used to produce ice cream.
A  35
B  21
C  45
D  9

212. It takes approximately_______ pounds of skim milk to make a pound of dry curd cottage cheese.
A  7.8
B  7.3
C  8.6
D  4.3

213. 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 ______ ?F within two hours after milking.
A  60
B  70
C  45
D  25
214. A fluid milk product that contains at least 8.25 percent nonfat milk solids and no more than 0.5 gram of fat in a single 8 ounce serving is _________________.
A whole Milk  
B reduced fat milk  
C nonfat milk  
D low-fat milk

215. In Federal Order markets, milk sold for consumption in fluid form is __________ milk.
A Class I  
B Class III  
C Class IV  
D Class II

216. Adolescents have a recommendation of _______ milligrams of calcium per day.
A 1,200  
B 1,500  
C 1,300  
D 1,000

217. The major difference between evaporated and condensed milk is _________________________.
A condensed milk has sugar added to it  
B condensed milk has a lower fat content than evaporated milk  
C evaporated milk has less water than condensed milk  
D condensed milk comes in smaller size containers than evaporated milk

218. One test for antibiotics, a common adulterant of milk, is based upon the principle that the growth of bacteria is ___________ by them.
A inhibited  
B stimulated  
C enhanced  
D magnified

219. The “set aside” of $0.15 per hundred pounds of milk from a milk producer’s check is used for programs that support ________.
A promotion and testing  
B research and testing  
C promotion and research  
D teaching and research

220. New food plate guidelines recommended servings of dairy products per day?
A 4  
B 2  
C 5  
D 3

221. The ________ off-flavor is seldom found except in pasteurized milk that has been stored too long.
A high acid  
B foreign  
C feed  
D unclean
222. Determining _____________ is not an objective of milk evaluation.
   A the presence of undesirable characteristics
   B one brand of milk from another
   C whether one sample differs from another
   D the presence of desirable characteristics

223. A cow needs ___________ pounds of water for every pound of dry matter consumed.
   A 25 to 30
   B 10 to 15
   C 1 to 2
   D 4 to 5

224. A cryoscopy is an important tool used to test for _______________ in milk.
   A butterfat
   B added water
   C antibiotics
   D protein

225. The traditional method of pricing milk uses a milk fat differential of .1 percent from a base of ______ percent milk fat.
   A 3.25
   B 3.0
   C 3.75
   D 3.50

226. Off-flavors in milk such as acid, high acid, or sour milk are caused by ________________.
   A weeds
   B chemical adulterants
   C microorganisms
   D sediment residues

227. If vitamin A is added to milk, it must be at a level of no less than _______ international units (I.U.) per quart.
   A 1,500
   B 2,000
   C 1,000
   D 400

228. Summer milk has been estimated to contain 1.6 times as much vitamin ______ as winter milk.
   A B
   B C
   C A
   D D

229. To defray the cost of Federal Orders, handlers are assessed _____ cents per hundredweight of milk received.
   A 7-10
   B 15
   C 2-5
   D 1-3
230. Quality of Grade A milk is _____________________.
   A  a part of the testing by Market Administrators
   B  only checked when there is excess milk
   C  not controlled by Federal Orders
   D  the first consideration in pooling milk

231. The __________ off-flavor of milk is not caused by bacteria.
   A  malty
   B  salty
   C  yeasty
   D  bitter

232. The standard plate count (SPC) is an estimate of the total number of __________ microorganisms.
   A  anaerobic
   B  aerobic
   C  sub clinical
   D  probiotic

233. An example of value-added agriculture is _____________________.
   A  using a custom heifer raiser
   B  purchasing milk from a local producer
   C  contracting your alfalfa early
   D  a farm that markets a “farm branded” cheese

234. The standard plate count for different producers’ milk that is comingled together can be as high as
   __________?
   A  400,000/ml.
   B  200,000/ml.
   C  300,000/ml.
   D  750,000/ml.

235. The marketing tool used in the futures market by someone who owns a commodity such as milk and
    intends to sell it sometime in the future is _____________________.
   A  pooling contract
   B  basis contract
   C  short hedge contract
   D  speculating contract

236. It requires ______ pounds of milk to produce one gallon of gourmet ice cream.
   A  16
   B  24
   C  12
   D  8

237. Monterey Jack cheese has a maximum moisture content of _______ percent.
   A  44
   B  36
   C  24
   D  60
238.  Aflatoxins sometimes found in dairy feeds are produced by ____________.
   A  mold  
   B  protozoa  
   C  bacteria  
   D  yeasts  

239.  The Babcock test is a rapid, simple and accurate test for ______________ in milk.
   A  fat content  
   B  water  
   C  nonfat milk solids content  
   D  titratable acidity  

240.  Federal Milk Order hearings can be lengthy because any ______________ can testify and anyone may cross-examine the witness.
   A  federal lawyer  
   B  federal employee  
   C  cooperative manger  
   D  interested party  

241.  The current U.S. per capita consumption of milk is approximately ________ gallons per year.
   A  20  
   B  15  
   C  25  
   D  28  

242.  Approximately ______ percent of the 2015 U.S. milk supply was used to make cheese.
   A  10  
   B  40  
   C  50  
   D  60  

243.  Bacteria that survive heat treatment are said to be ______________.
   A  psychrophilic  
   B  psychotropic  
   C  coliform  
   D  thermoduric  

244.  The actual milk check received by dairy farmers is called the ____________.
   A  mailbox price  
   B  milk-feed ratio price  
   C  Federal Order price  
   D  cooperative bonus premium price  

245.  The milk fat differential used in paying for raw milk is _________________.
   A  a value established to penalize milk producers who have too much fat in their milk  
   B  a value set to penalize milk producers who have too little fat in their milk  
   C  the price to be added or subtracted per .1 percent of milk fat above or below a set percentage  
   D  the price to be added or subtracted per .5 percent of milk fat above or below a set percentage
246. Cultured sour cream is required by federal standards to have a minimum of ______ percent fat.
   A  10
   B  3.25
   C  5
   D  18

247. Demand for dairy products is typically the lowest in the ________.
   A  fall
   B  spring
   C  winter
   D  summer

248. U.S. milk production in 2013, increased to over ________________ pounds of milk.
   A  100 billion
   B  200 billion
   C  1 billion
   D  10 billion

249. The ___________ is not an antibiotic screening test for Beta Lactam drugs in raw milk.
   A  snap test
   B  delvo test
   C  assay test
   D  charm test

250. The healthiest range for somatic cell counts is ____________.
   A  400,000-1,200,000
   B  0-200,000
   C  5,000,000+
   D  200,000-400,000

251. Milk is a good source of all water-soluble vitamins except ____________.
   A  riboflavin
   B  thiamine
   C  ascorbic acid
   D  cyanocobalmin

252. Most antibiotic screening tests to be approved for use, must detect ______ primary Beta Lactam drugs.
   A  6 of 8
   B  4 of 6
   C  3 of 4
   D  8 of 12

253. The maximum acceptable coliform bacteria count for Grade “A” pasteurized milk is usually considered to be _______ /milliliter.
   A  50
   B  10
   C  100
   D  15
254. It takes approximately _____ pounds of whole milk to make one pound of whole milk cheddar cheese.
A 5  
B 13  
C 22  
D 10

255. The ___________ practice destroys 90 percent of BST found in milk.
A pasteurization  
B reverse osmosis  
C hormonization  
D homogenization

256. The ideal cleaning material for removing milk stone from milking equipment surfaces is ____________.
A chelate solution  
B surfactant  
C phosphate solution  
D acidic detergent

257. 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 psychotropic bacteria  
C lipolytic bacteria  
D coliform bacteria

258. Some streptococci that produce lactic acid also produce certain aldehydes, which impart a ________ flavor to milk.
A metallic  
B salty  
C bitter  
D malty

259. The country that is usually the largest purchaser of U.S. dairy products is ________.
A Japan  
B China  
C Canada  
D Mexico

260. One state that does not participate in the Federal Milk Marketing Order program but is considering a proposal to create a Federal Milk Order is ____________.
A New York  
B California  
C Pennsylvania  
D Minnesota

261. Yogurt is manufactured from fresh, whole, low-fat or skim milk that is heated before fermentation. Federal standards require yogurt to have a minimum of ______ percent fat.
A .5  
B 1  
C 2  
D 3.25
262. A dairy farm transitioning to certified organic production will require _______ years to complete the process.
   A 1
   B 5
   C 7
   D 3

263. The natural lipase enzyme contained in all raw milk is kept away from milk fat globules, thus preventing development of rancidity because the_______________________________.
   A enzyme has to be activated by the heat of pasteurization
   B fat globule is surrounded by a protective membrane
   C fat globules are too small to attract the enzyme until they are homogenized
   D major protein, casein, ties up the lipase

264. California is the leading state in production of ice cream, followed by ____________.
   A Minnesota
   B Texas
   C Colorado
   D Indiana

265. The off-flavor most likely to be found in milk that has not been cooled properly is _____________.
   A rancid
   B oxidized
   C bitter
   D sour

266. In regards to commodities, hedging is the _________________________.
   A buying of goods on the belief their value will increase
   B the act of protecting yourself against negative price changes
   C the act of buying and selling stocks
   D the act of buying and selling commodities

267. The constant freezing point of milk is generally considered to be a negative _____________.
   A 0.517 degrees C
   B 0.508 degrees C
   C 0.500 degrees C
   D 0.502 degrees C

268. A primary cause of milkstone on equipment is due to ___________________________.
   A all of these
   B failure to use adequate detergent in dairies that have hard water
   C the use of acid cleaners in dairies having hard water
   D the use of soft water for cleaning and rinsing

269. Evaporated milk is preheated to stabilize the protein, followed by the removal of ______ percent of the water.
   A 60
   B 30
   C 90
   D 100
270. Suspension of a milk producer’s Grade A permit can result after ________ previous bacterial counts exceed the standard.
A  3 of 5  
B  4 of 6  
C  2 of 4  
D  5 of 7  

271. 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  

272. The secretory tissue within the mammary gland is a grapelike structure called:
A  annular ring  
B  alveoli  
C  clitoris  
D  glanus cistern  

273. Most dairy cows are milked two or three times per day. On average, a cow will produce _______ pounds of milk each day.
A  8.6 - 17.4  
B  51.6 – 64.5  
C  126 – 137.6  
D  172.2 - 180.6  

274. A pooling method where, handlers with higher than average utilization pay into the pool and handlers with lower than average utilization receive payments from the pool, is called ____________.
A  producer settlement fund  
B  Individual handlers pools  
C  base excess pricing  
D  louisville take out/pay back  

275. By regulation, milk from cows treated with antibiotics usually must be withheld for ____________ hours.
A  48 – 72  
B  30-60  
C  72 – 96  
D  48 – 108  

276. Milk protein allergies are a form of milk intolerance. These generally occur only in infants and are usually outgrown by ________ months of age.
A  24  
B  18  
C  12  
D  6
277. Based on ice cream consumption figures, the second most popular flavor is _______________.
   A strawberry
   B vanilla
   C cookies n' cream
   D chocolate

278. According to the USDA Dairy Products summary, Wisconsin has the most manufacturing plants with 210 while _______________ has no manufacturing plants.
   A Wyoming
   B Arkansas
   C Mississippi
   D Tennessee

279. Amino acids are commonly found in milk proteins, including the _______ essential amino acids.
   A 19
   B 7
   C 12
   D 14

280. An imitation/substitute product by FDA definition meets all of the following statements except:
   A Looks like the real product it represents
   B Has the same nutritional value as the real product in replaces
   C Taste like the real product it represents
   D Imitation/substitute products are not regulated by the FDA

281. The Agricultural Act of 2014 (farm bill) provides a risk management tool for U.S. dairy producers. This tool recognizes large swings in feed costs and milk prices and is referred to _______________.
   A Milk Income Loss Contract
   B Price Support Program
   C Milk Income-Over-Feed Cost
   D Dairy Export Incentive Program

282. The largest increase in per capita consumption for any dairy product was in _______________.
   A cheese
   B ice cream
   C yogurt
   D low-fat milk

283. A magnet is typically used in the ___________ stomach to trap metal objects that cause hardware disease.
   A omasum
   B rumen
   C reticulum
   D abomasum

284. Cow's milk contains ______ percent lactose.
   A 3
   B 5
   C 6
   D 4
285. The highest price for milk is paid in the _______ region of the United States
   A  northeast
   B  southwest
   C  southeast
   D  northwest

286. For the best utilization of nutrients, reduced risk of runoff and reduced odors, the _______ manure management practice is favored.
   A  injection
   B  broadcast
   C  surface application
   D  flood application

287. It takes approximately ____ pounds of skim milk to make one pound of non-fat dry milk.
   A  12
   B  10
   C  11
   D  20

288. Over half of the top 50 U.S. dairy cooperatives belong to a federation that is dairy farmers’ chief lobbying voice in the nation’s capital. The name of this federation is the _________________.
   A  International Dairy Foods Association
   B  National Milk Producers Federation
   C  Dairy Farmers of America Federation
   D  International Dairy Federation

289. There are four classes of milk under Federal Orders which provide for _________________.
   A  Payment for the relative safety of each class
   B  payment for milk according to its cost of production
   C  payment for milk according to its end use
   D  payment for milk according to its quality

290. Fluid milk use per person has reached its lowest level since tracking began in 1909. Currently ____________ pounds of fluid milk are currently used per person per year.
   A  201
   B  86
   C  312
   D  515

291. The largest exported U.S. dairy product by total volume is ____________.
   A  dry whey
   B  non-fat dry milk
   C  condensed milk
   D  cheese and curd

292. The enzyme ____________ is almost completely inactivated during pasteurization.
   A  acid glycerol
   B  FFA (Free Fatty Acid)
   C  alkaline phosphatase
   D  lactose
293. Cows with ____________ have a higher incidence of mastitis because physical injury is more likely.
   A  pendulous udders
   B  lower foot angles
   C  horns
   D  sickle hocks

294. The country which averages the second largest production per cow behind the U.S. is __________.
   A  Argentina
   B  Japan
   C  Australia
   D  Canada

295. 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

296. The maximum moisture content of cheddar cheese is __________ percent.
   A  30
   B  39
   C  12
   D  23

297. Data from the International Dairy Federation shows __________ to have the highest capita consumption of butter and milk.
   A  United States
   B  Brazil
   C  New Zealand
   D  Australia

298. According to HACCP, a receiving station is where ________________.
   A  raw milk is received, handled, stored, etc
   B  cows enter the parlor to be milked
   C  trucks receive milk
   D  supplies are received

299. A high acid (sour) flavor in milk is caused by ____________________________.
   A  exposure of cows to acid rain
   B  cows drinking hard water
   C  growth of bacteria in the milk
   D  cows absorbing acid from corn silage

300. Since 1984, when President Ronald Reagan proclaimed a National Ice Cream Month, it has been celebrated annually in ____________.
   A  June
   B  July
   C  September
   D  August