

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 agalactiae and Staphylococcus aureus**
  - D Streptococcus uberis and Streptococcus dysgalactiae
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 \_\_\_\_\_ survey.  
**\*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 60°F is \_\_\_\_\_ m/s<sup>2</sup>.  
\*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 worlds 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 psychophilic
  - 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