1. The sudden death of heavily muscled hogs is referred to as:
   *A Porcine Stress Syndrome
   B Mycoplasmal Pneumonia
   C Porcine Circivirus
   D Porcine Cardiac Complex

2. A swine nutritional health problem caused by lack of iron in the diet.
   A Rickets
   B Parakeratosis
   *C Anemia
   D Hypoglycemia

3. Which vitamin do animals tend to produce enough of so that it does not need to be included as a specific nutrient in their rations?
   A Vitamin D
   *B Vitamin C
   C Vitamin A
   D Vitamin E

4. The removal of the testicles from a male animal is:
   A dehorning
   *B castration
   C vaccination
   D insemination

5. Which species of livestock reaches puberty based on the season and not age?
   A Sheep
   *B Goats
   C Cattle
   D Swine

6. The process of placing sperm in the female reproductive tract by some other means than natural mating is known as:
   A pregnancy testing
   B embryo transfer
   C estrus synchronization
   *D artificial insemination

7. The first breed of beef cattle imported to the United States in the late 1700’s was the:
   A Brahman
   B Hereford
   C Angus
   *D Shorthorn

8. _______ is a measure of the degree of difference between the offspring of a specific bull and the offspring of the average bull of the breed in the trait being measured.
   *A EPD
   B OSB
   C MPV
   D SPF
9. The expected yield of a hog with a USDA quality grade of No. 1 is:
   A  52 to 54.4%
   B  57.4 to 60.3%
   *C  60.4% or greater
   D  54.4 to 57.3%

10. Sheep are a major enterprise in the ________ area of the United States.
    A  southern
    *B  western
    C  northern
    D  eastern

11. What is an infertile female calf born as a twin to a fertile male calf called?
    *A  Freemartin
    B  Sex-limited
    C  Markhors
    D  Clone

12. Fat present in muscle tissue is known as:
    A  condition
    B  tallow
    *C  marbling
    D  finish

13. Heifers most commonly reach puberty at the average age of:
    A  18 months
    B  12 months
    *C  7 months
    D  4 months

14. An animal that has extremely straight hind legs is best described as being:
    A  sound
    B  cow-hocked
    *C  post-legged
    D  sickle-hocked

15. Which fat-soluble vitamin is associated with bone development and calcium absorption?
    A  Vitamin A
    B  Vitamin E
    C  Vitamin K
    *D  Vitamin D

16. Which amino acid listed is first limiting in swine rations?
    *A  lysine
    B  glycine
    C  cystine
    D  proline
17. What do Hampshires, Polands, and Berkshires have in common?
   A origin
   B popularity
   C ear shape
   *D color

18. How well an animal likes or accepts a feed is referred to as the:
   A digestibility
   B composition
   *C palatability
   D balance

19. Anthrax is a disease caused by bacteria that may remain in the soil for _____ years or longer.
   A 10
   *B 40
   C 20
   D 30

20. Which polled breed of cattle originated from horned cattle due to a genetic mutation?
   A Red Poll
   *B Polled Hereford
   C Red Angus
   D Galloway

21. Diseases caused by a virus or bacteria are classed as:
   A physiological
   B morphological
   C nutritional
   *D pathogenic

22. The rate or percentage of animals becoming pregnant.
   A parturition
   B breeding soundness
   *C conception rate
   D hybrid vigor

23. The biggest problem of raising sheep is the loss caused by:
   *A internal parasites
   B Blue tongue
   C Overeating disease
   D external parasites

24. A visual evaluation of the amount of muscle on a hog is best seen by looking at the ____________ view of the hog.
   A top
   *B rear
   C front
   D side
25. Which of the following vitamins is in the category of water-soluble?
   A  Vitamin D
   *B  Vitamin B
   C  Vitamin E
   D  Vitamin A

26. According to USDA, the greatest expense in the production of livestock is:
   A  contract and hired labor
   B  livestock purchased
   *C  feed purchased
   D  fuel and electricity

27. One common characteristic between Yorkshire, Landrace, and Chester Whites is:
   A  terminal qualities
   *B  color
   C  maternal qualities
   D  ear shape

28. The class of sheep that are evaluated more on the quality of their fleece than other sheep are known as:
   A  Long-wool breeds
   B  Medium-wool breeds
   *C  Fine-wool breeds
   D  Mutton breeds

29. Which trait has the highest heritability estimate in cattle?
   *A  post weaning rate of gain
   B  number of young weaned
   C  weaning weight
   D  fertility

30. Which of the following breeds of swine is best on performance of litter size?
   A  Poland
   B  Berkshire
   *C  Landrace
   D  Duroc

31. Which of the following breeds of cattle is NOT primarily white to gray in color?
   A  White Park
   B  Charolais
   *C  Limousin
   D  Chianina

32. Bacterial disease that affects both sheep and goats when the animal has a wound. Symptoms include stiffness, rigid jaw, and inability to eat.
   A  Blue Tounge
   *B  Tetanus
   C  Enterotoxemia
   D  Vibriosis
33. Swine dysentery is also known as:
   A Bloody scours
   B White scours
   C Clostridial diarrhea
   D Vibrionic scours

34. Archeology has found evidence that sheep have been domesticated for ________ years.
   A 2000
   B 1000
   *C 6000
   D 250

35. Which disease affects the turbinate bones in swine?
   A Leptospirosis
   *B Atropic Rhinitis
   C Actinobacillus Pleuropneumoniae
   D Eperythrozoonosis

36. The period of time which an animal is pregnant is called:
   A Estrus
   B Ovulation
   C Parturition
   *D Gestation

37. Feed additives used to prevent disease and promote growth are:
   A anthelmintics
   *B antibiotics
   C antioxidants
   D hormones

38. An animal’s central nervous system includes the brain and:
   *A spinal cord
   B autonomic nerves
   C somatic nerves
   D effector organ

39. The most common sheep identification system is:
   A freeze branding
   B ear notching
   *C ear tags
   D tattooing

40. The major objection of boar meat is the odor of the meat called boar taint. One compound causing boar taint is:
   A Testosterone
   B Progesterone
   *C Skatole
   D Sulfamethazine
41. What is a common disqualification in rules for registering animals in a breed association?
   A  weight
   B  size
   *C  color markings
   D  eyes

42. Cattle can generally lose from 1 to 5 percent of their weight when transported. The
   A  sale weight
   B  shipping weight
   *C  shrinkage
   D  fillback

43. Archaeological evidence from the Middle East indicates domestication of the pig occurred as early as
   __________ years ago.
   A  1000
   B  500
   C  5000
   *D  9000

44. A __________ animal is one that is of a particular breed.
   A  outcrossed
   *B  purebred
   C  crossbred
   D  linebred

45. The mating of animals of different family lines within the same breed is:
   A  crossbreeding
   B  inbreeding
   *C  outcrossing
   D  linebreeding

46. Which part of the ruminant stomach is recognized as the true stomach?
   *A  Abomasum
   B  Reticulum
   C  Rumen
   D  Omasum

47. The breed of cattle that was developed on the King Ranch in Texas and consists of 3/8 Brahman and 5/8
   Shorthorn is called:
   A  Beefmaster
   B  Shorthorn
   C  Brangus
   *D  Santa Gertrudis

48. The first American breed of beef cattle was the:
   A  Santa Gertrudis
   B  Angus
   C  Polled Hereford
   *D  Texas Longhorn
49. Fistulated cattle are used primarily for ____________ studies and research.
   A  health
   B  embryo
   C  breeding
   *D  nutrition

50. A method of animal identification that uses very low temperature to change pigment color of the skin is:
   A  notching
   *B  freeze brand
   C  hot brand
   D  tattoo

51. Proteins produced by an animal’s immune system in response to invasion by bacteria, viruses, or parasites are:
   A  serums
   *B  antibodies
   C  vaccines
   D  toxoids

52. A market where cattle are sold by public bidding, with the animals going to the highest bidder is known as a(n):
   A  internet market
   *B  auction market
   C  electronic market
   D  contract market

53. Brisket disease affects the _____ in cattle?
   *A  heart
   B  lungs
   C  stomach
   D  brain

54. Which feed uses fermentation in order to increase palatability?
   A  hay
   *B  silage
   C  concentrates
   D  by-products

55. Yearlings are feeder calves between one and two years old weighing about ____________ pounds.
   A  100-250
   *B  550-700
   C  400-550
   D  250-400

56. Fine Wool breeds of sheep include all of the following EXCEPT:
   A  Delaine Merino
   B  Debouillet
   *C  Corriedale
   D  Rambouillet
57. Administering an medicinal agent to livestock that requires placement directly into a vein is called:
   *A intravenous  
   B subcutaneous  
   C intrarumen  
   D intramuscular

58. Subcutaneous injections are given:
   *A under the skin  
   B in the muscle  
   C orally  
   D in the ear

59. About ______ percent of total income from all livestock marketing in the United States comes from the beef industry?
   *A 38  
   B 24  
   C 52  
   D 11

60. Newborn animals receive immunity to diseases by drinking:
   *A colostrum  
   B sterile water  
   C fibrinogen  
   D vaccines

61. What breed of cattle used in the United States came from Australia?
   A Salers  
   B Blonde d'Aquitaine  
   C Brangus  
   *D Murray Grey

62. Which information is NOT typically required for the registration of individual hogs?
   A Ear notches  
   B Date farrowed  
   C Name of sire  
   *D Number of teats

63. The reflex and response that an animal has at birth is:
   *A instinct  
   B conditioning  
   C intelligence  
   D reasoning

64. Scrapie is a disease of both sheep and goats that affects the:
   A lungs  
   B skin  
   *C brain  
   D digestive tract
65. EPD stands for:
   A express package delivery
   *B expected progeny difference
   C extra production difference
   D expected product differential

66. Administering a medical agent to livestock that requires placement into the skin is a(n) _________ injection.
   *A intradermal
   B intramuscular
   C intravenous
   D intramammary

67. A breed of cattle that originated in Scotland that has a smooth hair coat, black in color, polled, and is one of the most popular breeds in the United States today:
   A Gelbvieh
   *C Angus
   D Devon

68. The average daily gain for growing cattle on full feed.
   *A 3 lb/day
   B 10 lb/day
   C 5 lb/day
   D 1 lb/day

69. A chronic degenerative disease that affects the central nervous system of cattle (also called "Mad Cow Disease")
   A Infectious Bovine Rhinotracheitis
   B Keratoconjunctivitis
   C Bovine Respiratory Syncytial Virus
   *D Bovine Spongiform Encephalopathy

70. External fat on a lamb carcass is measured between which two ribs?
   *A 12 & 13
   B 1 & 2
   C 9 & 10
   D 3 & 4

71. What is the only breed of sheep raised for fur in the United States?
   A Dorset
   *C Karakul
   B Merino
   D Cheviot

72. Which trait for swine has the lowest heritability estimate?
   *A Litter size
   B Percent ham
   C Carcass Length
   D Loin muscle area
73. The physical appearance of an animal is known as:
   *A phenotype
   B pedigree
   C genotype
   D performance

74. Which protein concentrate is limited to use by ruminants?
   A meat scraps
   B molasses
   C soybean meal
   *D urea

75. The Pork Promotion, Research and Consumer Information Act of 1985 established an assessment of ____ per $100 value of pork sold in the United States
   A 75 cents
   B 60 cents
   *C 40 cents
   D $1.00

76. Which of the following breeds of cattle was originally red in color?
   A Galloway
   B Brangus
   *C Gelbvieh
   D Brown Swiss

77. One common characteristic between Hampshire, Yorkshire, and Berkshire swine is:
   A color
   *B erect ears
   C maternal qualities
   D terminal qualities

78. Estrus in cattle usually occurs every:
   A 30 days
   B 12 days
   C 60 days
   *D 21 days

79. A permanent change in the genotype of an offspring from that of its parents.
   *A mutation
   B mitosis
   C dominance
   D heterosis

80. The most common classification of sheep is by:
   A Origin
   B Birth numbers
   *C Type of wool
   D Carcass type
81. Which breed of beef cattle imported from France was originally used as draft animals?
   *A Maine-Anjou
   B Chianina
   C Brangus
   D Hereford

82. The breed of swine which is white in color with erect ears and used extensively in commercial operations for the maternal characteristics is the:
   A Landrace
   B Berkshire
   *C Yorkshire
   D Chester White

83. The tube that carries air to an animal's lungs.
   A esophagus
   B turbinate
   *C trachea
   D epidermal

84. Cotswold sheep are classified as:
   A Fine Wool
   B Crossbred Wool
   C Medium Wool
   *D Long Wool

85. The leg and loin of a lamb are the primary wholesale meat cuts that come from the:
   *A hindsaddle
   B rack
   C foresaddle
   D chuck

86. Which species of livestock has a diploid number of 27 (pairs of chromosomes)?
   *A Sheep
   B Goats
   C Cattle
   D Swine

87. Fats and oils provide _________ times more energy than do carbohydrates,
   A 10
   B 5.5
   *C 2.25
   D 100

88. Which breed of swine does not have a predominant red color?
   A Duroc
   *B Poland China
   C Tamworth
   D Hereford
89. Which breed of cattle is most popular in Europe?
   A  Limousin
   B  Shorthorn
   *C Simmental
   D  Maine-Anjou

90. The growth and development of animals prior to birth.
   A  embryo
   B  gestation
   *C prenatal
   D  placental

91. Which Medium Wool breed was developed in the United States?
   *A Montadale
   B  Southdown
   C  Hampshire
   D  Dorset

92. The age at which an animal reaches sexual maturity is:
   A  adolescence
   B  parturition
   C  heterosis
   *D puberty

93. The most serious health problem of sheep and goats is:
   *A Internal parasites
   B  Bacterial diseases
   C  External parasites
   D  Nutritional deficiencies

94. Which breed of swine developed in the United States originated in the state of New York / New Jersey?
   *D Duroc
   A  Hampshire
   B  Landrace
   C  Pietrain

95. Which exotic breed of cattle originated from Italy?
   *D Chianina
   A  Limousin
   B  Devon
   C  Simmental

96. The male bovine of any age that has not been castrated.
   *B Bull
   A  Boar
   C  Ram
   D  Buck
97. Which of the following minerals is a trace mineral?
   A potassium
   B calcium
   C sodium
   *D selenium

98. Which state has the greatest total number of beef cattle?
   *A Texas
   B California
   C Kentucky
   D Nebraska

99. A cattle producer that produces breeding stock including bulls and females for cow-calf operations is commonly called a:
   *A seedstock/purebred breeder
   B feedyard manager
   C stocker operator
   D commercial cattleman

100. In 1985, a one dollar per head checkoff for every head of beef sold in the United States was
   *A Beef Promotion and Research Act
   B Livestock Marketing Tax
   C Beef Quality Assurance Act
   D Packers and Stockyard Act

101. Solid floors in hog houses are usually made of ___________.
    A wood
    *B concrete
    C earthen
    D pea gravel

102. Many of the odor problems from confinement operations are related to the release of ___________ from manure.
    A sulfur
    B methane
    *C ammonia
    D carbon dioxide

103. Nutrients, which an animal can synthesize for growth and maintenance, are in a category called:
    *A non-essential nutrients
    B minerals
    C essential nutrients
    D protein

104. The normal body temperature of cattle is:
    A 104.6 oF
    B 100.1 oF
    *C 101.5 oF
    D 98.6 oF
105. The swine trait having the highest heritability estimate is:
   A backfat thickness
   *B carcass length
   C birthweight
   D growth rate

106. Disease caused by an organism that mainly affects the lungs.
   A leptospirosis
   B brucellosis
   C erysipelas
   *D tuberculosis

107. ________________ is the practice of feeding a ration for ten days to two weeks before breeding.
   A Culling
   B Waiting
   C Rationing
   *D Flushing

108. Feed that is provided to young animals as an extra ration and is fed in an area that is inaccessible to the
     mothers is called a:
     *A creep feed
     B maintenance feed
     C lactation ration
     D finishing ration

109. The ____________ breed of swine can be traced to the early 1700's?
    A Poland China
    B Duroc
    C Hampshire
    *D Berkshire

110. A single stomach animal can synthesize ________ of the 22 required amino acids.
     A 2
     B 0
     C 22
     *D 12

111. What is the most important nutrient in a swine ration?
     A soybean meal
     B corn
     *C water
     D roughage

112. The first of the Continental breeds to be imported in the United States:
     A Simmental
     B Salers
     *C Charolais
     D Limousin
113. The removal of all or part of the tail from sheep is referred to as:
   A  notching
   B  castration
   C  dehorning
   *D  docking

114. Which of the following countries has the greatest number of hogs?
   A  USA
   B  Germany
   *C  China
   D  Denmark

115. Calves younger than 3 months of age sold for slaughter are:
   A  kids
   B  cabritos
   C  baby beef
   *D  veal

116. An impairment that affects the performance of the vital life functions.
   *A  disease
   B  protozoa
   C  parasite
   D  metabolism

117. Milk fever is a nutritional disease affecting both sheep and goats during lactation due to a lack of __________ in the blood.
   A  iron
   B  selenium
   C  iodine
   *D  calcium

118. The breed of sheep noted for producing a 200 to 250 percent lamb crop:
   A  Delaine Merino
   B  Southdown
   C  Leicester
   *D  Finnsheep

119. When evaluating swine performance data, litter weights are adjusted to a standard of how many days?
   *A  21 days
   B  15 days
   C  28 days
   D  12 days

120. When using ultrasound to evaluate breeding swine, the two measurements taken are backfat thickness and:
   A  marbling
   *B  loin-eye area
   C  lean percent
   D  internal fat
121. Breeds of cattle that are used for both milk and meat production are considered to be:
   A terminal breeds
   B continental breeds
   *C dual-purpose breeds
   D maternal breeds

122. The majority of medium wool breeds of sheep originated in:
   A Scotland
   B Australia
   *C England
   D United States

123. The average feed conversion ratio for beef cattle on full feed is:
   A 3:1-4:1
   *B 6:1-7:1
   C 2:1-3:1
   D 10:1-12:1

124. Baby pigs require temperatures of ___________ degrees F.
   A 50-60
   B 70-80
   C 60-70
   *D 80-90

125. Which trait in sheep has the lowest heritability estimate?
   *A feed efficiency
   B rib eye area
   C mature weight
   D yearling weight

126. Which of the following is water-soluble vitamin?
   A potassium
   *B pantothenic acid
   C vitamin A
   D selenium

127. Cattle infected with this disease often abort during the last half of pregnancy.
   *A Brucellosis
   B Enteritis
   C Actinobacillosis
   D Paratuberculosis

128. Which of the following traits is considered undesirable when judging market lambs?
   A harder handling
   *B early maturing
   C greater size
   D heavier muscled
129. Lamb prices vary throughout the year and reach a high during which time?  
A  December to February  
B  September to November  
*C  March to May  
D  June to August  

130. The record of the ancestors of a particular animal is recorded in its:  
A  genetic map  
B  performance record  
C  phenotype  
*D  pedigree  

131. Goat meat is marketed under the name:  
A  Veal  
B  Venison  
*C  Chevon  
D  Mutton  

132. Which breed of goat produces mohair?  
*A  Angora  
B  Boer  
C  Toggenburg  
D  Nubian  

133. Lambs are commonly weaned at about ____________ months of age.  
A  four  
B  two  
*C  three  
D  six  

134. What is an animal resulting from the mating of two different breeds?  
*A  crossbred  
B  feral  
C  inbred  
D  purebred  

135. The gestation time for cattle is:  
A  148 days  
B  350 days  
*C  283 days  
D  114 days  

136. Which breed of sheep was developed at North Carolina State University?  
A  Southdown  
B  Hampshire  
*C  Polled Dorset  
D  Suffolk
137. Feedstuffs such as hay and silage are classified as:
   A proteins
   B minerals
   *C roughages
   D concentrates

138. The total protein contained in a feed is ________ protein.
   A non-digestible
   *B crude
   C plant
   D digestible

139. Name the breed of cattle which the United States Congress appropriated money in 1927 because they were almost extinct.
   *A Texas Longhorn
   B Beefmaster
   C Hereford
   D Angus

140. A medication sprayed directly into the animal’s nostrils is called a __________ injection.
   A subcutaneous
   B intravenous
   *C intranasal
   D intramuscular

141. Two factors that have a major influence on profitability in swine production are:
   *A Number of pigs weaned per sow; feed efficiency
   B Breed; feed efficiency
   C Breed; adaptability to environment
   D Number of pigs weaned per sow; adaptability to environment

142. Which livestock product has the highest consumption rate in the United States?
   A Lamb
   *B Beef
   C Pork
   D Goat

143. Which animals cannot synthesize all of the required amino acids?
   A cattle
   B herbivores
   C sheep
   *D swine

144. The most important wholesale cut of lamb is:
   A rib
   *B leg
   C foreshank
   D shoulder
145. Which trait in beef cattle has the highest heritability estimate?
   
   A  Yearling weight
   B  Rib eye area
   C  Weaning weight
   D  Carcass weight

146. Medications used to produce immunity in livestock that are derived from plasma and fibrinogen removed from blood are:
   
   A  serums
   B  bacterins
   C  antibiotics
   D  vaccines

147. Swine are typically identified for registration by the use of:
   
   A  Ear Tags
   B  Freeze Brand
   C  Ear Notches
   D  Tattoos

148. Approximately what percent of the market hogs sold in the United States are priced on the basis of carcass merit?
   
   A  70%
   B  90%
   C  50%
   D  30%

149. Which breed of cattle descended from Spanish Andalusian cattle brought over by Columbus on his second voyage?
   
   A  Santa Gertrudis
   B  Texas Longhorn
   C  Hereford
   D  Scotch Highland

150. Which state has greatest feedlot beef cattle production?
   
   A  Iowa
   B  Oklahoma
   C  California
   D  Nebraska

151. Modern domestic cattle evolved from what single early ancestor?
   
   A  Aurochs
   B  Bos indicus
   C  Buffalo
   D  Bos taurus

152. The average dressing percentage of a steer grading choice is:
   
   A  0.51
   B  0.62
   C  0.7
   D  0.43
153. What area of livestock production is the major issue of animal rights organizations?
   *A confinement  
   B reproduction  
   C health  
   D nutrition

154. Which of the following is NOT required on a feed tag?
   *A price per CWT  
   B guaranteed analysis  
   C active drug ingredient  
   D ingredients

155. The largest compartment of the ruminant stomach for a mature grazing cow is called the:
   A reticulum  
   B omasum  
   C abomasums  
   *D rumen

156. In swine, a male that has been castrated before reaching sexual maturity is called a:
   A wether  
   B stag  
   C boar  
   *D barrow

157. Which state produces the most hogs?
   *A Iowa  
   B Illinois  
   C Texas  
   D Oklahoma

158. Which breed of swine is considered the oldest?
   A Yorkshire  
   B Chester White  
   C Hampshire  
   *D Berkshire

159. Helminths are of major economic importance to the livestock industry in regard to the management of:
   A disease  
   B external parasites  
   *C internal parasites  
   D viruses

160. What is a free-roaming "wild" animal that was once domesticated called?
   *A feral  
   B stag  
   C boar  
   D buck
161. A maintenance ration for beef cattle is primarily:
   A  Concentrates
   B  Carbohydrates
   C  Proteins
   *D  Roughages

162. The Pietrain breed of swine originated in ____________.
   A  Germany
   B  Denmark
   *C  Belgium
   D  China

163. Beef cattle or sheep born without horns are commonly referred to as:
   *A  polled
   B  hornless
   C  scurred
   D  bald

164. Tetanus is a __________ disease.
   A  nutritional
   *B  bacterial
   C  viral
   D  fungal

165. What breed of sheep that has a distinctive white face originated in Scotland?
   A  Drysdale
   B  Corriedale
   *C  Cheviot
   D  Suffolk

166. Cholera is a __________ disease.
   A  fungal
   B  bacterial
   *C  viral
   D  nutritional

167. An essential or non-essential element or compound in a food or feed is a(n):
   A  organic
   *B  nutrient
   C  mineral
   D  protein

168. The process of taking food nutrients through the intestinal wall is:
   A  regurgitation
   B  mastication
   *C  absorption
   D  assimilation
169. Morphological defects in livestock are caused by:
A pathogens  
*B accidents  
C bacteria  
D viruses

170. The most prevalent breed of sheep in the world is the:
A Suffolk  
B Hampshire  
*C Merino  
D Columbia

171. Which country accounts for the highest percent of the world cattle population?
*A India  
B USA  
C Russia  
D Australia

172. What trait of a hog refers to its ability to raise large litters of pigs?
A terminal quality  
*B maternal quality  
C conversion ratio  
D yield

173. A system that is used for trading contracts for future delivery of cattle is known as:
A auction market  
*B futures market  
C order buying  
D internet auction

174. Which species of livestock is most efficient into converting feed into energy and protein?
A cattle  
B sheep  
C goats  
*D swine

175. The ability to initiate, sustain, and support reproduction.
A gestation  
B lactation  
*C fertility  
D inbreeding

176. Which of the following minerals is categorized as a macro mineral?
A Zinc  
B Iodine  
C Manganese  
*D Calcium
177. The most important factor when formulating a ration for livestock is:
   A size of the animal
   *B total digestive nutrients
   C feed cost
   D availability of feed

178. Feed additives used to control worms and other internal parasites are:
   *A Anthelmintics
   B Probiotics
   C Coccidiostats
   D Antimicrobials

179. Which Medium Wool breed of sheep has a white face?
   A Shropshire
   B Suffolk
   *C Dorset
   D Hampshire

180. Cattle are in a class of animals which consume only plant products known as:
   A carnivores
   B omnivores
   C non-ruminants
   *D herbivores

181. Which of the following breeds of cattle did not originate in Italy?
   A Chianina
   *B Maine Anjou
   C Piedmontese
   D Romagnola

182. The genetic makeup of an animal is called its:
   A phenotype
   B dominance
   *C genotype
   D recessiveness

183. Which common breed of swine was imported to the United States from Denmark?
   A Hereford
   *B Landrace
   C Yorkshire
   D Duroc

184. The normal body temperature of sheep and swine is:
   A Below 97 o F
   B 100 o F
   *C Above 102 o F
   D 98.6 oF
185. Pinkeye is a disease in cattle that is carried by _____________.
   A  worms
   *B  insects
   C  mites
   D  rodents

186. The natural waviness of wool fiber is called:
   *A  Crimp
   B  Kemp
   C  Staple length
   D  Braid

187. The age of the beef animal and the amount of marbling in the carcass affect the
   A  yield grade
   *B  quality grade
   C  dressing percentage
   D  hot carcass weight

188. Organic compounds, which are the building blocks in the formation of proteins, are:
   A  glycogens
   B  chromosomes
   C  fat-soluble vitamins
   *D  amino acids

189. The expected yield of a hog with an USDA quality grade of No. 2 is:
   *A  57.4 to 60.3%
   B  54.5 to 57.3%
   C  49.9 to 52.2%
   D  52.3 to 54.4%

190. Which production trait in swine is not increased when crossing with a purebred sow?
   A  Feed/gain ratio
   B  Days to 250 pounds
   *C  Conception rate
   D  Litter size weaned

191. The use of liquid nitrogen for storage of semen and embryos.
   *A  cryopreservation
   B  hydroponics
   C  cloning
   D  genetic manipulation

192. Cattle that are generally between six months and one year old and are sold to people
   A  veal calves
   B  packer cattle
   *C  feeder cattle
   D  slaughter cattle
193. A condition caused by a lack of sugar in the diet:
   A Parakeratosis  
   B SMEDI  
   C Pseudorabies  
   *D Hypoglycemia

194. Amino acids are the building blocks of:
   A sugars  
   B vitamins  
   C fats  
   *D protein

195. Range production accounts for __________ percent of the total sheep production in the United States.
   A 50  
   *B 70  
   C 30  
   D 10

196. Vitamins that are not stored in the body and need to be consumed everyday are:
   A Vitamins A,D,E, & K  
   B fat-soluble vitamins  
   C Selenium & Manganese  
   *D water soluble vitamins

197. The use of living organisms or their products (livestock production) is also known as:
   A animal rights  
   B animal welfare  
   C genetic engineering  
   *D biotechnology

198. Pigs must be ear notched for ____________, which is necessary for good record keeping.
   *A identification  
   B grouping  
   C sexing  
   D vaccination

199. The most popular breed of registered medium wool sheep in the United States is the:
   *A Hampshire  
   B Southdown  
   C Rambouillet  
   D Shropshire

200. The average length of gestation for goats is:
   A 114 days  
   *B 150 days  
   C 283 days  
   D 336 days
201. Joints in the skeleton of animals that allow free movement and have a fluid-filled cavity are called:
   A  fibrous joints
   *B  diarthroses joints
   C  amphiarthroses joints
   D  cartilaginous joints

202. Wheat bran and animal fat are feed concentrates that are classified as:
   A  grains
   B  animal proteins
   *C  processing by-products
   D  plant proteins

203. A nutritional problem in cattle characterized by swelling of the tissue that attaches the hoof to the foot and lameness of the animal.
   A  colic
   *B  founder
   C  anemia
   D  bloat

204. When animals band together in a herd or flock, the behavior is known as:
   A  investigative
   B  allelomimetic
   C  agonistic
   *D  gregarious

205. Which is the fast growing, meat-type goat with a brown head and white body and originally from South Africa?
   *A  Boer
   B  Angora
   C  Saanen
   D  Nubian

206. During cold weather, cattle feed should be increased by what percent for each degree of cold stress?
   A  0.05
   B  0.1
   *C  0.01
   D  0.03

207. Which hormone is responsible for the masculine appearance in animals?
   *A  Testosterone
   B  Progesterone
   C  Masterone
   D  Estrogen

208. Sheep and cattle both have multiple-compartment stomachs referred to as a(n):
   *A  ruminant
   B  colon
   C  intestine
   D  omasum
209. Which of the following wholesale cuts of beef has the highest value?
A  brisket
B  chuck
C  shank
*D  rib

210. Most swine purebred associations require several items of information for the registration of individual hogs. Which information is NOT required?
A  Number of pigs farrowed
B  Ear notches
*C  Weaning Weight
D  Date farrowed

211. Angus and Hereford cattle originated from the species:
*A  Bos taurus
B  Bos indicus
C  Bull durham
D  Tarentaise

212. Which cattle problem is associated with nutritional health?
A  Pinkeye
*B  Bloat
C  Ringworm
D  Warts

213. ____________ is a disease that affects the tissue of the foot in sheep.
A  Impaction
B  Scrapie
*C  Foot Rot
D  Tetanus

214. The weight of a hot beef carcass compared to the live weight of the animal is referred to as:
A  quality
*B  yield
C  balance
D  carcass merit

215. Which agency regulates the use of feed additives in the United States?
A  Food and Drug Administration (FDA)
B  Animal Health and Production Divison (AHPD)
*C  United States Department of Agriculture (USDA)
D  Federal Register (FR)

216. The average age of puberty in sheep is:
*A  6 months
B  18 months
C  12 months
D  3 months
217. Feed efficiency can be increased by _____________ grain because less is wasted.
   A  powdering  
   B  wetting  
   *C  pelleting  
   D  grinding  

218. __________ are growths on the skin of cattle caused by a virus.
   A  Trichomoniasis  
   B  Ringworms  
   C  Edemas  
   *D  Warts  

219. Which breed of white colored swine originated in Pennsylvania?
   A  Large Whites  
   *B  Chester White  
   C  Yorkshire  
   D  American Landrace  

220. The amount of fat cover on a market steer is referred to as:
   A  carcass merit  
   B  marbling  
   *C  finish  
   D  fleshing  

221. Beef cattle categorized as American breeds have what breed as a genetic base?
   A  Hereford  
   B  Shorthorn  
   C  Angus  
   *D  Brahman  

222. A complex protein produced by living cells that causes changes in other substances in the body without
     being changed itself and without becoming a part of the product is a(n):
   A  lipid  
   *B  enzyme  
   C  vitamin  
   D  steroid  

223. Beef Quality Assurance protocol suggests the proper intramuscular injection site for cattle is the:
   *A  Neck  
   B  Hind quarter  
   C  Shoulder  
   D  Rump  

224. What breed of hair sheep originated in Texas?
   A  Rambouillet  
   B  Rabo Largo  
   *C  Barbado  
   D  Suffolk
225. Which breed of medium wool sheep has the characteristics of white ears, face, nose, and legs?
   A  Hampshire
   B  Southdown
   C  Shropshire
   *D  Dorset

226. Which of the following countries produces the most sheep?
   A  England
   B  USA
   *C  Australia
   D  Scotland

227. The secretion and production of milk in sheep, cattle and swine is known as:
   A  anestrous
   *B  lactation
   C  fertilization
   D  ovulation

228. The degree to which the crossbred offspring out performs its purebred parents is:
   A  high performance
   B  phenotype
   C  ratio condition
   *D  hybrid vigor

229. What month of the year is the price of slaughter hogs the highest on average?
   A  October
   B  March
   C  December
   *D  July

230. Ruminant animals can synthesize ______ of the 22 required amino acids.
   A  10
   B  18
   *C  22
   D  0

231. The length of the estrous cycle for a ewe is:
   A  72 hours
   B  21 days
   C  14 days
   *D  17 days

232. What hormone is produced primarily by the ovaries in female animals?
   A  infundibulum
   B  testosterone
   *C  estrogen
   D  globulin
233. Rations formulated to keep an animal at its current weight and size is a _________ ration.
A  gestation  
B  weaning  
C  finishing  
*D maintenance

234. A selective form of breeding in which the sire and dam are related which some refer to as a mild form of inbreeding is called:
A  terminal  
*B linebreeding  
C  outcrossing  
D  crossbreeding

235. The majority of composite breeds of cattle in the United States use what breed as a foundation?
A  Polled Hereford  
B  Charolais  
*C  Brahman  
D  Brown Swiss

236. When evaluating sheep, the term that refers to ruggedness and stamina is:
A  condition  
*B constitution  
C  character  
D  balance

237. The critical stage of production in livestock when giving birth to their offspring is:
A  palpation  
*B parturition  
C  gestation  
D  pregnancy

238. Which of the following elements is not a component of a carbohydrate?
A  Oxygen  
*B Nitrogen  
C  Carbon  
D  Hydrogen

239. The first milk produced by a cow after giving birth is known as:
A  lactose  
B  buttermilk  
*C colostrum  
D  skim milk

240. A disease that affects cattle and sheep with symptoms of lameness, followed by depression and fever, followed by swelling in the muscles of the hip, shoulder, chest. Back, and neck, with sudden death within 3 days of the onset of the symptoms is:
*A blackleg  
B  leptospirosis  
C  pneumonia  
D  distemper
241. A nutritional problem characterized by a swollen abdomen on the left side, labored breathing, profuse salivation, groaning, lack of appetite, and stiffness.
   A  colic
   B  founder
   C  anemia
   *D  bloat

242. More than one-half of all the crossbred sheep in the United States carry some percentage of the particular breed.
   *A  Rambouillet
   B  Merino
   C  Dorset
   D  Columbia

243. Swine are in a class of animals that consume both plants and meat known as:
   A  herbivores
   B  carnivores
   *C  omnivores
   D  ruminants

244. Meat provides about what percent of the animal protein consumed in the world?
   A  0.55
   B  0.9
   C  0.1
   *D  0.35

245. An objectionable inherited defect in swine known as a whorl is actually a(n):
   *A  hair disturbance
   B  defective color
   C  inverted teat
   D  extra dewclaw

246. Limousin, Charolais, and Maine-Anjou cattle are important breeds used in U.S. beef production that all originated from:
   A  England
   B  Italy
   C  Scotland
   *D  France

247. A male sheep castrated before reaching sexual maturity is called a:
   A  ram
   B  mutton
   *C  wether
   D  buck

248. Which of the following feeds is highest in total digestible nutrients (TDN)?
   *A  corn
   B  sudangrass
   C  silage
   D  coastal Bermuda
249. The process of preparing calves for the stress of being moved into the feedlot is called:
   A  stockering
   B  stretching
   C  finishing
   *D  preconditioning

250. In comparing breed performance for litter size in swine, which breed has the highest litter size ratio?
   A  Chester White
   B  Hampshire
   C  Duroc
   *D  Landrace

251. Which breed of sheep has the strongest flocking instinct?
   A  Leicester
   *B  Rambouillet
   C  Shropshire
   D  Suffolk

252. Which of the following medium wool breeds of sheep are solid white in color?
   A  Southdown
   *B  Dorset
   C  Oxford
   D  Shropshire

253. The testes produce sperm cells and the male sex hormone:
   A  estrogen
   *B  testosterone
   C  infundibulum
   D  progesterone

254. The estrous cycle in swine occurs:
   *A  every 21 days
   B  twice per year
   C  bi-monthly
   D  weekly

255. The length of gestation for swine is an average of how many days?
   A  148 days
   B  283 days
   C  151 days
   *D  114 days

256. A method of animal identification that is a puncture in the skin of numbers or letters is known as:
   *A  tattoo
   B  freeze brand
   C  hot brand
   D  eartag
257. Animals that through selection and breeding have come to resemble one another and pass those traits uniformly to their offspring are defined as:
   A  a hybrid
   B  progeny
   *C a breed
   D  genetics

258. Accelerated lambing is a system that produces ________________ lamb crops in two years.
   A  four
   B  one
   *C three
   D  two

259. The recommended protein percent of a grower ration for swine from weaning to 75 pounds is:
   A  0.19
   B  0.12
   C  0.22
   *D  0.16

260. Which breed of beef cattle has been the leader on total number registered since 1970?
   A  Hereford
   B  Simmental
   C  Charolais
   *D  Angus

261. A disease carried by insects that affect the eyes of cattle is:
   A  leptospirosis
   B  brucellosis
   C  anthrax
   *D  pinkeye

262. The amount of ammoniacal nitrogen in a feed multiplied by 6.25 is the ____________ content of a feed.
   A  fiber
   *B  crude protein
   C  fat
   D  vitamins

263. Which major swine breed originated in England, with the major development of the breed occurring in Kentucky? Originally known as the Thin Rind.
   A  Chester White
   B  Poland China
   *C Hampshire
   D  Duroc

264. The state having the highest population of sheep and lambs is:
   A  Wyoming
   B  Colorado
   *C Texas
   D  California
265. The feed component containing the most easily digested carbohydrates is the:
   A  amino acids
   B  minerals
   *C  nitrogen free extract
   D  crude fiber

266. Diseases present in the animal's body at levels too low to cause visible effects are:
   *A  subclinical
   B  probiosis
   C  chemobiotics
   D  subtherapeutic

267. Feed additives in swine rations that control internal parasites are:
   A  amino acids
   B  vitamins
   C  antibiotics
   *D  anthelmintics

268. Suffolk sheep ancestry goes back to what breed of sheep?
   A  Merino
   B  Dorset
   C  Rambouillet
   *D  Southdown

269. Cattle have how many pairs of chromosomes?
   A  60
   *B  30
   C  24
   D  16

270. Vitamins that are stored in the body and need not be consumed everyday are:
   A  B complex vitamins
   B  selenium & manganese
   *C  fat soluble
   D  water soluble

271. What is the average normal temperature of healthy swine in degrees Fahrenheit?
   *A  102.6
   B  98.6
   C  104.1
   D  100.4

272. In a swine carcass, the loin is about ________ percent of the total carcass.
   A  0.3
   B  0.4
   *C  0.2
   D  0.1
273. What feedstuff contributes most of the carbohydrates in swine rations?
A oats
B soybean meal
C alfalfa meal
*D corn

274. The most common parasites affecting beef cattle are:
A ticks
*B flies
C roundworms
D liver flukes

275. The breeds of cattle with origin in Europe such as Charolais, Simmental, and Limousin are usually referred to as:
*A Continental breeds
B British breeds
C Commercial breeds
D Maternal breeds