

1. Which Medium Wool breed was developed in the United States?
 - *A Montadale
 - B Dorset
 - C Southdown
 - D Hampshire
2. Proteins produced by an animal's immune system in response to invasion by bacteria, viruses, or parasites are:
 - A vaccines
 - B serums
 - C toxoids
 - *D antibodies
3. Which information is NOT typically required for the registration of individual hogs?
 - *A Number of teats
 - B Date farrowed
 - C Name of sire
 - D Ear notches
4. 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 Vibriosis
 - C Enterotoxemia
 - *D Tetanus
5. Which of the following breeds of cattle is NOT primarily white to gray in color?
 - A Charolais
 - B Chianina
 - *C Limousin
 - D White Park
6. A swine nutritional health problem caused by lack of iron in the diet.
 - *A Anemia
 - B Parakeratosis
 - C Hypoglycemia
 - D Rickets
7. 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 Polled Hereford
 - *B Angus
 - C Gelbvieh
 - D Devon

8. The leg and loin of a lamb are the primary wholesale meat cuts that come from the:
- A rack
 - B foresaddle
 - C chuck
 - *D hindsaddle**
9. Which country accounts for the highest percent of the world cattle population?
- A Russia
 - *B India**
 - C Australia
 - D USA
10. Meat provides about what percent of the animal protein consumed in the world?
- A 0.55
 - *B 0.35**
 - C 0.9
 - D 0.1
11. The process of taking food nutrients through the intestinal wall is:
- A assimilation
 - B regurgitation
 - C mastication
 - *D absorption**
12. Which cattle problem is associated with nutritional health?
- A Ringworm
 - B Warts
 - *C Bloat**
 - D Pinkeye
13. Which breed of medium wool sheep has the characteristics of white ears, face, nose, and legs?
- *A Dorset**
 - B Hampshire
 - C Southdown
 - D Shropshire
14. Which trait for swine has the lowest heritability estimate?
- A Percent ham
 - *B Litter size**
 - C Loin muscle area
 - D Carcass Length

15. The _____ breed of swine can be traced to the early 1700's?
- *A **Berkshire**
 - B Poland China
 - C Duroc
 - D Hampshire
16. Beef cattle categorized as American breeds have what breed as a genetic base?
- *A **Brahman**
 - B Shorthorn
 - C Hereford
 - D Angus
17. 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 Brangus
 - B Beefmaster
 - *C **Santa Gertrudis**
 - D Shorthorn
18. The first American breed of beef cattle was the:
- *A **Texas Longhorn**
 - B Angus
 - C Santa Gertrudis
 - D Polled Hereford
19. One common characteristic between Yorkshire, Landrace, and Chester Whites is:
- A maternal qualities
 - B terminal qualities
 - C ear shape
 - *D **color**
20. Sheep are a major enterprise in the _____ area of the United States.
- *A **western**
 - B eastern
 - C northern
 - D southern
21. Which trait has the highest heritability estimate in cattle?
- A fertility
 - B weaning weight
 - *C **post weaning rate of gain**
 - D number of young weaned

22. Ruminant animals can synthesize _____ of the 22 required amino acids.
- A 0
 - B 10
 - *C 22**
 - D 18
23. The most popular breed of registered medium wool sheep in the United States is the:
- A Shropshire
 - *B Hampshire**
 - C Southdown
 - D Rambouillet
24. The Pietrain breed of swine originated in _____.
- *A Belgium**
 - B Germany
 - C Denmark
 - D China
25. The breeds of cattle with origin in Europe such as Charolais, Simmental, and Limousin are usually referred to as:
- *A Continental breeds**
 - B Maternal breeds
 - C Commercial breeds
 - D British breeds
26. Lambs are commonly weaned at about _____ months of age.
- *A three**
 - B two
 - C six
 - D four
27. According to USDA, the greatest expense in the production of livestock is:
- A livestock purchased
 - B fuel and electricity
 - C contract and hired labor
 - *D feed purchased**
28. Feed additives in swine rations that control internal parasites are:
- A antibiotics
 - B vitamins
 - C amino acids
 - *D anthelmintics**

29. What feedstuff contributes most of the carbohydrates in swine rations?
- *A corn
 - B alfalfa meal
 - C oats
 - D soybean meal
30. Which breed of beef cattle has been the leader on total number registered since 1970?
- A Charolais
 - B Simmental
 - *C Angus
 - D Hereford
31. Fat present in muscle tissue is known as:
- A tallow
 - B condition
 - C finish
 - *D marbling
32. 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
33. Which breed of cattle descended from Spanish Andalusian cattle brought over by Columbus on his second voyage?
- A Scotch Highland
 - B Hereford
 - *C Texas Longhorn
 - D Santa Gertrudis
34. A nutritional problem characterized by a swollen abdomen on the left side, labored breathing, profuse salivation, groaning, lack of appetite, and stiffness.
- A anemia
 - B colic
 - C founder
 - *D bloat
35. Amino acids are the building blocks of:
- *A protein
 - B vitamins
 - C fats
 - D sugars

36. A _____ animal is one that is of a particular breed.
- A linebred
 - B crossbred
 - *C purebred**
 - D outcrossed
37. Which state has greatest feedlot beef cattle production?
- A Oklahoma
 - *B Nebraska**
 - C Iowa
 - D California
38. The use of living organisms or their products (livestock production) is also known as:
- *A biotechnology**
 - B animal welfare
 - C animal rights
 - D genetic engineering
39. Estrus in cattle usually occurs every:
- A 60 days
 - B 30 days
 - C 12 days
 - *D 21 days**
40. 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 leptospirosis
 - B distemper
 - *C blackleg**
 - D pneumonia
41. The length of the estrous cycle for a ewe is:
- A 21 days
 - *B 17 days**
 - C 72 hours
 - D 14 days
42. Which Medium Wool breed of sheep has a white face?
- A Hampshire
 - B Shropshire
 - *C Dorset**
 - D Suffolk

43. One common characteristic between Hampshire, Yorkshire, and Berkshire swine is:
- *A erect ears
 - B terminal qualities
 - C maternal qualities
 - D color
44. Which common breed of swine was imported to the United States from Denmark?
- A Duroc
 - B Yorkshire
 - *C Landrace
 - D Hereford
45. Baby pigs require temperatures of _____ degrees F.
- A 50-60
 - B 60-70
 - C 70-80
 - *D 80-90
46. The most serious health problem of sheep and goats is:
- A Bacterial diseases
 - B Nutritional deficiencies
 - *C Internal parasites
 - D External parasites
47. Solid floors in hog houses are usually made of _____.
- A wood
 - B earthen
 - C pea gravel
 - *D concrete
48. Helminths are of major economic importance to the livestock industry in regard to the management of:
- A disease
 - *B internal parasites
 - C external parasites
 - D viruses
49. The first breed of beef cattle imported to the United States in the late 1700's was the:
- A Brahman
 - *B Shorthorn
 - C Hereford
 - D Angus

50. Which of the following breeds of cattle did not originate in Italy?
- A Romagnola
 - B Piedmontese
 - *C Maine Anjou**
 - D Chianina
51. Archaeological evidence from the Middle East indicates domestication of the pig occurred as early as _____ years ago.
- *A 9000**
 - B 5000
 - C 500
 - D 1000
52. The genetic makeup of an animal is called its:
- A dominance
 - *B genotype**
 - C recessiveness
 - D phenotype
53. Which breed of goat produces mohair?
- *A Angora**
 - B Boer
 - C Nubian
 - D Toggenburg
54. 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 a breed**
 - C progeny
 - D genetics
55. The largest compartment of the ruminant stomach for a mature grazing cow is called the:
- A reticulum
 - *B rumen**
 - C abomasums
 - D omasum
56. Feed additives used to control worms and other internal parasites are:
- A Antimicrobials
 - B Probiotics
 - C Coccidiostats
 - *D Anthelmintics**

57. Archeology has found evidence that sheep have been domesticated for _____ years.
- A 2000
 - B 250
 - C 1000
 - *D 6000**
58. Fats and oils provide _____ times more energy than do carbohydrates,
- *A 2.25**
 - B 10
 - C 5.5
 - D 100
59. Which major swine breed originated in England, with the major development of the breed occurring in Kentucky? Originally known as the Thin Rind.
- A Poland China
 - *B Hampshire**
 - C Duroc
 - D Chester White
60. Which breed of sheep has the strongest flocking instinct?
- A Leicester
 - *B Rambouillet**
 - C Shropshire
 - D Suffolk
61. An animal's central nervous system includes the brain and:
- A effector organ
 - *B spinal cord**
 - C somatic nerves
 - D autonomic nerves
62. Which part of the ruminant stomach is recognized as the true stomach?
- A Rumen
 - B Reticulum
 - C Omasum
 - *D Abomasum**
63. What is a free-roaming "wild" animal that was once domesticated called?
- A buck
 - B stag
 - C boar
 - *D feral**

64. Yearlings are feeder calves between one and two years old weighing about _____ pounds.
- A 400-550
 - B 100-250
 - C 250-400
 - *D 550-700**
65. Heifers most commonly reach puberty at the average age of:
- *A 7 months**
 - B 18 months
 - C 4 months
 - D 12 months
66. 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 Berkshire
 - B Chester White
 - C Landrace
 - *D Yorkshire**
67. 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 A
 - *B Vitamin C**
 - C Vitamin E
 - D Vitamin D
68. Which of the following breeds of swine is best on performance of litter size?
- A Duroc
 - *B Landrace**
 - C Poland
 - D Berkshire
69. Which breed of swine is considered the oldest?
- A Yorkshire
 - *B Berkshire**
 - C Chester White
 - D Hampshire
70. Which species of livestock reaches puberty based on the season and not age?
- A Swine
 - B Sheep
 - C Cattle
 - *D Goats**

71. What do Hampshires, Polands, and Berkshires have in common?
- *A color
 - B origin
 - C popularity
 - D ear shape
72. Which of the following vitamins is in the category of water-soluble?
- A Vitamin E
 - *B Vitamin B
 - C Vitamin D
 - D Vitamin A
73. 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
74. A method of animal identification that uses very low temperature to change pigment color of the skin is:
- A tattoo
 - *B freeze brand
 - C notching
 - D hot brand
75. Which of the following countries produces the most sheep?
- *A Australia
 - B England
 - C USA
 - D Scotland
76. When evaluating swine performance data, litter weights are adjusted to a standard of how many days?
- A 12 days
 - *B 21 days
 - C 15 days
 - D 28 days
77. Which breed of sheep was developed at North Carolina State University?
- A Suffolk
 - B Hampshire
 - *C Polled Dorset
 - D Southdown

78. Diseases caused by a virus or bacteria are classed as:

- *A pathogenic
- B morphological
- C physiological
- D nutritional

79. Cholera is a _____ disease.

- A nutritional
- *B viral
- C fungal
- D bacterial

80. _____ is a disease that affects the tissue of the foot in sheep.

- *A Foot Rot
- B Scrapie
- C Tetanus
- D Impaction

81. Newborn animals receive immunity to diseases by drinking:

- A sterile water
- B fibrinogen
- C vaccines
- *D colostrum

82. The period of time which an animal is pregnant is called:

- A Ovulation
- *B Gestation
- C Estrus
- D Parturition

83. Range production accounts for _____ percent of the total sheep production in the United States.

- A 30
- *B 70
- C 10
- D 50

84. The average age of puberty in sheep is:

- A 12 months
- B 3 months
- *C 6 months
- D 18 months

85. The average daily gain for growing cattle on full feed.
- A 1 lb/day
 - B 10 lb/day
 - C 5 lb/day
 - *D 3 lb/day**
86. A male sheep castrated before reaching sexual maturity is called a:
- A ram
 - B mutton
 - C buck
 - *D wether**
87. The majority of composite breeds of cattle in the United States use what breed as a foundation?
- A Brown Swiss
 - *B Brahman**
 - C Charolais
 - D Polled Hereford
88. The most important factor when formulating a ration for livestock is:
- A feed cost
 - B size of the animal
 - *C total digestive nutrients**
 - D availability of feed
89. A cattle producer that produces breeding stock including bulls and females for cow-calf operations is commonly called a:
- A commercial cattleman
 - *B seedstock/purebred breeder**
 - C stocker operator
 - D feedyard manager
90. What is the only breed of sheep raised for fur in the United States?
- A Merino
 - B Dorset
 - *C Karakul**
 - D Cheviot
91. The expected yield of a hog with an USDA quality grade of No. 2 is:
- A 52.3 to 54.4%
 - *B 57.4 to 60.3%**
 - C 54.5 to 57.3%
 - D 49.9 to 52.2%

92. Which production trait in swine is not increased when crossing with a purebred sow?
- *A Conception rate
 - B Days to 250 pounds
 - C Feed/gain ratio
 - D Litter size weaned
93. Which agency regulates the use of feed additives in the United States?
- A Animal Health and Production Division (AHPD)
 - B Federal Register (FR)
 - C Food and Drug Administration (FDA)
 - *D United States Department of Agriculture(USDA)
94. Sheep and cattle both have multiple-compartment stomachs referred to as a(n):
- A colon
 - B intestine
 - *C ruminant
 - D omasum
95. A single stomach animal can synthesize _____ of the 22 required amino acids.
- *A 12
 - B 2
 - C 0
 - D 22
96. What breed of hair sheep originated in Texas?
- A Rambouillet
 - B Suffolk
 - C Rabo Largo
 - *D Barbado
97. The major objection of boar meat is the odor of the meat called boar taint. One compound causing boar taint is:
- A Progesterone
 - B Testosterone
 - *C Skatole
 - D Sulfamethazine
98. Fine Wool breeds of sheep include all of the following EXCEPT:
- A Rambouillet
 - B Debouillet
 - *C Corriedale
 - D Delaine Merino

99. The sudden death of heavily muscled hogs is referred to as:
- A Porcine Cardiac Complex
 - B Mycoplasmal Pneumonia
 - C Porcine Circivirus
 - *D Porcine Stress Syndrome**
100. What hormone is produced primarily by the ovaries in female animals?
- A globulin
 - B infundibulum
 - C testosterone
 - *D estrogen**
101. Organic compounds, which are the building blocks in the formation of proteins, are:
- A chromosomes
 - B fat-soluble vitamins
 - *C amino acids**
 - D glycogens
102. The weight of a hot beef carcass compared to the live weight of the animal is referred to as:
- A quality
 - B balance
 - C carcass merit
 - *D yield**
103. Which of the following traits is considered undesirable when judging market lambs?
- A harder handling
 - B greater size
 - C heavier muscled
 - *D early maturing**
104. When evaluating sheep, the term that refers to ruggedness and stamina is:
- A condition
 - B character
 - C balance
 - *D constitution**
105. Pinkeye is a disease in cattle that is carried by _____.
- A rodents
 - B mites
 - *C insects**
 - D worms

106. Feedstuffs such as hay and silage are classified as:

- *A roughages
- B proteins
- C concentrates
- D minerals

107. Beef cattle or sheep born without horns are commonly referred to as:

- A bald
- B hornless
- *C polled
- D scurred

108. Which trait in beef cattle has the highest heritability estimate?

- A Weaning weight
- B Carcass weight
- *C Rib eye area
- D Yearling weight

109. Which of the following minerals is a trace mineral?

- A sodium
- B calcium
- *C selenium
- D potassium

110. The process of preparing calves for the stress of being moved into the feedlot is called:

- A stretching
- B finishing
- *C preconditioning
- D stockering

111. Administering an medicinal agent to livestock that requires placement directly into a vein is called:

- *A intravenous
- B intramuscular
- C subcutaneous
- D intrarumen

112. Feed additives used to prevent disease and promote growth are:

- *A antibiotics
- B hormones
- C antioxidants
- D anthelmintics

113. When animals band together in a herd or flock, the behavior is known as:
- A allelomimetic
 - B agonistic
 - *C gregarious**
 - D investigative
114. Nutrients, which an animal can synthesize for growth and maintenance, are in a category called:
- A minerals
 - B protein
 - C essential nutrients
 - *D non-essential nutrients**
115. A chronic degenerative disease that affects the central nervous system of cattle (also called "Mad Cow Disease")
- A Bovine Respiratory Syncytial Virus
 - B Keratoconjunctivitis
 - *C Bovine Spongiform Encephalopathy**
 - D Infectious Bovine Rhinotracheitis
116. The removal of the testicles from a male animal is:
- A dehorning
 - B insemination
 - *C castration**
 - D vaccination
117. Which breed of swine does not have a predominant red color?
- A Duroc
 - B Tamworth
 - *C Poland China**
 - D Hereford
118. Swine are in a class of animals that consume both plants and meat known as:
- A ruminants
 - B carnivores
 - C herbivores
 - *D omnivores**
119. More than one-half of all the crossbred sheep in the United States carry some percentage of the particular breed.
- A Columbia
 - B Dorset
 - C Merino
 - *D Rambouillet**

120. The most important wholesale cut of lamb is:

- A shoulder
- *B leg**
- C foreshank
- D rib

121. The growth and development of animals prior to birth.

- A placental
- B embryo
- *C prenatal**
- D gestation

122. What breed of sheep that has a distinctive white face originated in Scotland?

- A Corriedale
- *B Cheviot**
- C Drysdale
- D Suffolk

123. The reflex and response that an animal has at birth is:

- A intelligence
- B reasoning
- *C instinct**
- D conditioning

124. 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 anemia
- *C founder**
- D bloat

125. Which state produces the most hogs?

- *A Iowa**
- B Texas
- C Illinois
- D Oklahoma

126. The age at which an animal reaches sexual maturity is:

- A adolescence
- B parturition
- C heterosis
- *D puberty**

127. Administering a medical agent to livestock that requires placement into the skin is a(n) _____ injection.
- A intramuscular
 - B intravenous
 - C intramammary
 - *D intradermal**
128. An impairment that affects the performance of the vital life functions.
- A protozoa
 - B parasite
 - *C disease**
 - D metabolism
129. 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 side
 - D front
130. Accelerated lambing is a system that produces _____ lamb crops in two years.
- *A three**
 - B one
 - C four
 - D two
131. Subcutaneous injections are given:
- A orally
 - B in the muscle
 - C in the ear
 - *D under the skin**
132. Pigs must be ear notched for _____, which is necessary for good record keeping.
- A vaccination
 - B sexing
 - C grouping
 - *D identification**
133. Cattle are in a class of animals which consume only plant products known as:
- A carnivores
 - B omnivores
 - C non-ruminants
 - *D herbivores**

134. Wheat bran and animal fat are feed concentrates that are classified as:
- A animal proteins
 - B plant proteins
 - *C processing by-products**
 - D grains
135. The average dressing percentage of a steer grading choice is:
- A 0.7
 - B 0.43
 - *C 0.62**
 - D 0.51
136. Many of the odor problems from confinement operations are related to the release of _____ from manure.
- A carbon dioxide
 - B sulfur
 - *C ammonia**
 - D methane
137. Which state has the greatest total number of beef cattle?
- *A Texas**
 - B Nebraska
 - C California
 - D Kentucky
138. Milk fever is a nutritional disease affecting both sheep and goats during lactation due to a lack of _____ in the blood.
- A iron
 - *B calcium**
 - C iodine
 - D selenium
139. The age of the beef animal and the amount of marbling in the carcass affect the
- A yield grade
 - *B quality grade**
 - C hot carcass weight
 - D dressing percentage
140. The mating of animals of different family lines within the same breed is:
- A inbreeding
 - B crossbreeding
 - C linebreeding
 - *D outcrossing**

141. What trait of a hog refers to its ability to raise large litters of pigs?
- *A maternal quality**
 - B conversion ratio
 - C terminal quality
 - D yield
142. In 1985, a one dollar per head checkoff for every head of beef sold in the United
- *A Beef Promotion and Research Act**
 - B Livestock Marketing Tax
 - C Packers and Stockyard Act
 - D Beef Quality Assurance Act
143. Which of the following breeds of cattle was originally red in color?
- A Brangus
 - B Galloway
 - C Brown Swiss
 - *D Gelbvieh**
144. What breed of cattle used in the United States came from Australia?
- *A Murray Grey**
 - B Salers
 - C Brangus
 - D Blonde d'Aquitaine
145. Which breed of beef cattle imported from France was originally used as draft animals?
- *A Maine-Anjou**
 - B Brangus
 - C Hereford
 - D Chianina
146. What is the most important nutrient in a swine ration?
- A corn
 - B roughage
 - C soybean meal
 - *D water**
147. How well an animal likes or accepts a feed is referred to as the:
- A balance
 - *B palatability**
 - C composition
 - D digestibility

148. What area of livestock production is the major issue of animal rights organizations?
- A health
 - B nutrition
 - *C confinement**
 - D reproduction
149. The class of sheep that are evaluated more on the quality of their fleece than other sheep are known as:
- *A Fine-wool breeds**
 - B Long-wool breeds
 - C Medium-wool breeds
 - D Mutton breeds
150. In swine, a male that has been castrated before reaching sexual maturity is called a:
- A boar
 - *B barrow**
 - C stag
 - D wether
151. Most swine purebred associations require several items of information for the registration of individual hogs. Which information is NOT required?
- *A Weaning Weight**
 - B Ear notches
 - C Number of pigs farrowed
 - D Date farrowed
152. Which of the following is NOT required on a feed tag?
- A active drug ingredient
 - B ingredients
 - *C price per CWT**
 - D guaranteed analysis
153. Which breed of swine developed in the United States originated in the state of New York / New Jersey?
- A Pietrain
 - *B Duroc**
 - C Landrace
 - D Hampshire
154. Joints in the skeleton of animals that allow free movement and have a fluid-filled cavity are called:
- A fibrous joints
 - B cartilaginous joints
 - *C diarthroses joints**
 - D amphiarthroses joints

155. Angus and Hereford cattle originated from the species:
- A Bull durham
 - B Bos indicus
 - *C Bos taurus**
 - D Tarentaise
156. The length of gestation for swine is an average of how many days?
- A 148 days
 - *B 114 days**
 - C 283 days
 - D 151 days
157. Which fat-soluble vitamin is associated with bone development and calcium absorption?
- *A Vitamin D**
 - B Vitamin A
 - C Vitamin K
 - D Vitamin E
158. The testes produce sperm cells and the male sex hormone:
- A infundibulum
 - B estrogen
 - *C testosterone**
 - D progesterone
159. The most common sheep identification system is:
- A ear notching
 - B tattooing
 - C freeze branding
 - *D ear tags**
160. Tetanus is a _____ disease.
- A fungal
 - *B bacterial**
 - C nutritional
 - D viral
161. Which amino acid listed is first limiting in swine rations?
- *A lysine**
 - B proline
 - C cystine
 - D glycine

162. Two factors that have a major influence on profitability in swine production are:
- A Number of pigs weaned per sow; adaptability to environment
 - B Breed; feed efficiency
 - C Breed; adaptability to environment
 - *D Number of pigs weaned per sow; feed efficiency**
163. An essential or non-essential element or compound in a food or feed is a(n):
- A mineral
 - B protein
 - C organic
 - *D nutrient**
164. The amount of fat cover on a market steer is referred to as:
- A marbling
 - *B finish**
 - C carcass merit
 - D fleshing
165. Which breed of white colored swine originated in Pennsylvania?
- A American Landrace
 - B Large Whites
 - *C Chester White**
 - D Yorkshire
166. Diseases present in the animal's body at levels too low to cause visible effects are:
- *A subclinical**
 - B chemobiotics
 - C subtherapeutic
 - D probiosis
167. 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 contract market
 - *C auction market**
 - D electronic market
168. The ability to initiate, sustain, and support reproduction.
- A gestation
 - B inbreeding
 - *C fertility**
 - D lactation

169. Which species of livestock has a diploid number of 27 (pairs of chromosomes)?
- A Cattle
 - B Swine
 - *C Sheep**
 - D Goats
170. Which of the following countries has the greatest number of hogs?
- A Germany
 - B USA
 - C Denmark
 - *D China**
171. The expected yield of a hog with a USDA quality grade of No. 1 is:
- A 57.4 to 60.3%
 - B 52 to 54.4%
 - C 54.4 to 57.3%
 - *D 60.4% or greater**
172. Which protein concentrate is limited to use by ruminants?
- A meat scraps
 - B soybean meal
 - *C urea**
 - D molasses
173. When using ultrasound to evaluate breeding swine, the two measurements taken are backfat thickness and:
- A lean percent
 - B marbling
 - C internal fat
 - *D loin-eye area**
174. Which species of livestock is most efficient into converting feed into energy and protein?
- A sheep
 - *B swine**
 - C cattle
 - D goats
175. The amount of ammoniacal nitrogen in a feed multiplied by 6.25 is the _____ content of a feed.
- A vitamins
 - B fat
 - *C crude protein**
 - D fiber

176. The degree to which the crossbred offspring out performs its purebred parents is:
- A phenotype
 - B high performance
 - *C hybrid vigor**
 - D ratio condition
177. Anthrax is a disease caused by bacteria that may remain in the soil for _____ years or longer.
- *A 40**
 - B 10
 - C 20
 - D 30
178. What is a common disqualification in rules for registering animals in a breed association?
- A eyes
 - B weight
 - *C color markings**
 - D size
179. Fistulated cattle are use primarily for _____ studies and research.
- A embryo
 - *B nutrition**
 - C health
 - D breeding
180. A permanent change in the genotype of an offspring from that of its parents.
- A heterosis
 - B dominance
 - C mitosis
 - *D mutation**
181. Brisket disease affects the _____ in cattle?
- *A heart**
 - B brain
 - C stomach
 - D lungs
182. Which polled breed of cattle originated from horned cattle due to a genetic mutation?
- A Galloway
 - *B Polled Hereford**
 - C Red Poll
 - D Red Angus

183. What is an animal resulting from the mating of two different breeds?
- A purebred
 - B inbred
 - C feral
 - *D crossbred**
184. The most prevalent breed of sheep in the world is the:
- A Suffolk
 - B Hampshire
 - C Columbia
 - *D Merino**
185. The secretion and production of milk in sheep, cattle and swine is known as:
- A fertilization
 - B anestrous
 - *C lactation**
 - D ovulation
186. _____ 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 SPF
 - C MPV
 - D OSB
187. What is an infertile female calf born as a twin to a fertile male calf called?
- A Clone
 - B Sex-limited
 - *C Freemartin**
 - D Markhors
188. The normal body temperature of cattle is:
- A 98.6 oF
 - B 104.6 oF
 - *C 101.5 oF**
 - D 100.1 oF
189. A medication sprayed directly into the animal's nostrils is called a _____ injection.
- *A intranasal**
 - B subcutaneous
 - C intramuscular
 - D intravenous

190. Swine dysentery is also known as:

- A Clostridial diarrhea
- *B Bloody scours**
- C White scours
- D Vibronic scours

191. A disease carried by insects that affect the eyes of cattle is:

- A leptospirosis
- B anthrax
- C brucellosis
- *D pinkeye**

192. Which trait in sheep has the lowest heritability estimate?

- A rib eye area
- *B feed efficiency**
- C yearling weight
- D mature weight

193. The feed component containing the most easily digested carbohydrates is the:

- A crude fiber
- B amino acids
- *C nitrogen free extract**
- D minerals

194. Which of the following feeds is highest in total digestible nutrients (TDN)?

- A coastal Bermuda
- *B corn**
- C silage
- D sudangrass

195. Medications used to produce immunity in livestock that are derived from plasma and fibrinogen removed from blood are:

- *A serums**
- B vaccines
- C bacterins
- D antibiotics

196. Breeds of cattle that are used for both milk and meat production are considered to be:

- A maternal breeds
- *B dual-purpose breeds**
- C continental breeds
- D terminal breeds

197. Which exotic breed of cattle originated from Italy?
- A Devon
 - B Simmental
 - *C Chianina**
 - D Limousin
198. In comparing breed performance for litter size in swine, which breed has the highest litter size ratio?
- A Chester White
 - B Duroc
 - C Hampshire
 - *D Landrace**
199. 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 40 cents**
 - B \$1.00
 - C 75 cents
 - D 60 cents
200. Goat meat is marketed under the name:
- A Veal
 - *B Chevon**
 - C Mutton
 - D Venison
201. Disease caused by an organism that mainly affects the lungs.
- A erysipelas
 - B brucellosis
 - *C tuberculosis**
 - D leptospirosis
202. Cotswold sheep are classified as:
- A Fine Wool
 - B Crossbred Wool
 - *C Long Wool**
 - D Medium Wool
203. The tube that carries air to an animal's lungs.
- A esophagus
 - *B trachea**
 - C turbinate
 - D epidermal

204. What is the average normal temperature of healthy swine in degrees Fahrenheit?

- A 104.1
- *B 102.6**
- C 98.6
- D 100.4

205. Vitamins that are stored in the body and need not be consumed everyday are:

- A B complex vitamins
- B water soluble
- *C fat soluble**
- D selenium & manganese

206. The swine trait having the highest heritability estimate is:

- A birthweight
- B backfat thickness
- C growth rate
- *D carcass length**

207. The average length of gestation for goats is:

- *A 150 days**
- B 336 days
- C 283 days
- D 114 days

208. A condition caused by a lack of sugar in the diet:

- A Pseudorabies
- B Parakeratosis
- *C Hypoglycemia**
- D SMEDI

209. The natural waviness of wool fiber is called:

- A Staple length
- *B Crimp**
- C Kemp
- D Braid

210. _____ are growths on the skin of cattle caused by a virus.

- A Edemas
- B Ringworms
- C Trichomoniasis
- *D Warts**

211. A system that is used for trading contracts for future delivery of cattle is known as:
- *A futures market
 - B order buying
 - C auction market
 - D internet auction
212. The breed of sheep noted for producing a 200 to 250 percent lamb crop:
- A Leicester
 - *B Finnsheep
 - C Delaine Merino
 - D Southdown
213. The process of placing sperm in the female reproductive tract by some other means than natural mating is known as:
- A estrus synchronization
 - B pregnancy testing
 - *C artificial insemination
 - D embryo transfer
214. Cattle have how many pairs of chromosomes?
- A 16
 - B 60
 - *C 30
 - D 24
215. Cattle can generally lose from 1 to 5 percent of their weight when transported. The
- A shipping weight
 - *B shrinkage
 - C sale weight
 - D fillback
216. The physical appearance of an animal is known as:
- A performance
 - *B phenotype
 - C genotype
 - D pedigree
217. A method of animal identification that is a puncture in the skin of numbers or letters is known as:
- A hot brand
 - *B tattoo
 - C eartag
 - D freeze brand

218. The recommended protein percent of a grower ration for swine from weaning to 75 pounds is:
- *A 0.16
 - B 0.12
 - C 0.22
 - D 0.19
219. Modern domestic cattle evolved from what single early ancestor?
- A Bos taurus
 - B Buffalo
 - C Bos indicus
 - *D Aurochs
220. EPD stands for:
- A extra production difference
 - *B expected progeny difference
 - C express package delivery
 - D expected product differential
221. Which of the following is water-soluble vitamin?
- A selenium
 - *B pantothenic acid
 - C potassium
 - D vitamin A
222. The first milk produced by a cow after giving birth is known as:
- *A colostrum
 - B lactose
 - C buttermilk
 - D skim milk
223. Which hormone is responsible for the masculine appearance in animals?
- *A Testosterone
 - B Masterone
 - C Estrogen
 - D Progesterone
224. 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 lactation ration
 - B maintenance feed
 - C finishing ration
 - *D creep feed

225. During cold weather, cattle feed should be increased by what percent for each degree of cold stress?
- A 0.03
 - *B 0.01**
 - C 0.05
 - D 0.1
226. The total protein contained in a feed is _____ protein.
- A plant
 - *B crude**
 - C digestible
 - D non-digestible
227. The critical stage of production in livestock when giving birth to their offspring is:
- A pregnancy
 - B palpation
 - *C parturition**
 - D gestation
228. Which of the following wholesale cuts of beef has the highest value?
- A chuck
 - *B rib**
 - C brisket
 - D shank
229. The average feed conversion ratio for beef cattle on full feed is:
- A 3:1-4:1
 - B 10:1-12:1
 - C 2:1-3:1
 - *D 6:1-7:1**
230. Rations formulated to keep an animal at its current weight and size is a _____ ration.
- A finishing
 - B gestation
 - *C maintenance**
 - D weaning
231. _____ is the practice of feeding a ration for ten days to two weeks before breeding.
- A Rationing
 - B Waiting
 - C Culling
 - *D Flushing**

232. The normal body temperature of sheep and swine is:
- A Below 97 o F
 - B 100 o F
 - C 98.6 oF
 - *D Above 102 o F**
233. 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
234. Which feed uses fermentation in order to increase palatability?
- A hay
 - B by-products
 - C concentrates
 - *D silage**
235. Feed efficiency can be increased by _____ grain because less is wasted.
- A powdering
 - B wetting
 - C grinding
 - *D pelleting**
236. Morphological defects in livestock are caused by:
- A viruses
 - *B accidents**
 - C bacteria
 - D pathogens
237. Cattle infected with this disease often abort during the last half of pregnancy.
- A Enteritis
 - B Paratuberculosis
 - *C Brucellosis**
 - D Actinobacillosis
238. The state having the highest population of sheep and lambs is:
- A Colorado
 - B California
 - C Wyoming
 - *D Texas**

239. About _____ percent of total income from all livestock marketing in the United States comes from the beef industry?
- A 24
 - B 52
 - C 11
 - *D 38**
240. Limousin, Charolais, and Maine-Anjou cattle are important breeds used in U.S. beef production that all originated from:
- *A France**
 - B Scotland
 - C Italy
 - D England
241. Beef Quality Assurance protocol suggests the proper intramuscular injection site for cattle is the:
- A Shoulder
 - *B Neck**
 - C Hind quarter
 - D Rump
242. An animal that has extremely straight hind legs is best described as being:
- A sound
 - B sickle-hocked
 - C cow-hocked
 - *D post-legged**
243. The record of the ancestors of a particular animal is recorded in its:
- *A pedigree**
 - B genetic map
 - C performance record
 - D phenotype
244. The first of the Continental breeds to be imported in the United States:
- A Salers
 - *B Charolais**
 - C Simmental
 - D Limousin
245. Which breed of cattle is most popular in Europe?
- A Maine-Anjou
 - B Limousin
 - C Shorthorn
 - *D Simmental**

246. The most common classification of sheep is by:
- A Origin
 - B Carcass type
 - C Birth numbers
 - *D Type of wool**
247. Which animals cannot synthesize all of the required amino acids?
- A cattle
 - B sheep
 - *C swine**
 - D herbivores
248. The most common parasites affecting beef cattle are:
- A roundworms
 - *B flies**
 - C ticks
 - D liver flukes
249. The use of liquid nitrogen for storage of semen and embryos.
- A genetic manipulation
 - *B cryopreservation**
 - C cloning
 - D hydroponics
250. Swine are typically identified for registration by the use of:
- A Ear Tags
 - *B Ear Notches**
 - C Freeze Brand
 - D Tattoos
251. The biggest problem of raising sheep is the loss caused by:
- A external parasites
 - *B internal parasites**
 - C Overeating disease
 - D Blue tongue
252. Which is the fast growing, meat-type goat with a brown head and white body and originally from South Africa?
- A Angora
 - *B Boer**
 - C Nubian
 - D Saanen

253. Which disease affects the turbinate bones in swine?

- A Actinobacillus Pleuropneumoniae
- B Leptospirosis
- C Eperythrozoonosis
- *D Atropic Rhinitis**

254. The estrous cycle in swine occurs:

- A twice per year
- B weekly
- C bi-monthly
- *D every 21 days**

255. The removal of all or part of the tail from sheep is referred to as:

- A castration
- B notching
- C dehorning
- *D docking**

256. Which of the following medium wool breeds of sheep are solid white in color?

- A Shropshire
- B Oxford
- *C Dorset**
- D Southdown

257. Name the breed of cattle which the United States Congress appropriated money in 1927 because they were almost extinct.

- *A Texas Longhorn**
- B Hereford
- C Beefmaster
- D Angus

258. Calves younger than 3 months of age sold for slaughter are:

- A cabritos
- B baby beef
- C kids
- *D veal**

259. External fat on a lamb carcass is measured between which two ribs?

- *A 12 & 13**
- B 1 & 2
- C 9 & 10
- D 3 & 4

260. A maintenance ration for beef cattle is primarily:
- *A Roughages
 - B Concentrates
 - C Proteins
 - D Carbohydrates
261. The male bovine of any age that has not been castrated.
- A Buck
 - *B Bull
 - C Ram
 - D Boar
262. The gestation time for cattle is:
- *A 283 days
 - B 148 days
 - C 350 days
 - D 114 days
263. Lamb prices vary throughout the year and reach a high during which time?
- A December to February
 - B June to August
 - C September to November
 - *D March to May
264. 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 crossbreeding
 - *C linebreeding
 - D outcrossing
265. What month of the year is the price of slaughter hogs the highest on average?
- A December
 - B October
 - *C July
 - D March
266. Approximately what percent of the market hogs sold in the United States are priced on the basis of carcass merit?
- A 30%
 - B 50%
 - *C 70%
 - D 90%

267. Vitamins that are not stored in the body and need to be consumed everyday are:

- A Selenium & Manganese
- B Vitamins A,D,E, & K
- *C water soluble vitamins**
- D fat-soluble vitamins

268. Suffolk sheep ancestry goes back to what breed of sheep?

- A Dorset
- *B Southdown**
- C Rambouillet
- D Merino

269. The rate or percentage of animals becoming pregnant.

- A hybrid vigor
- B breeding soundness
- *C conception rate**
- D parturition

270. Scrapie is a disease of both sheep and goats that affects the:

- *A brain**
- B lungs
- C skin
- D digestive tract

271. Which of the following minerals is categorized as a macro mineral?

- A Iodine
- *B Calcium**
- C Zinc
- D Manganese

272. The majority of medium wool breeds of sheep originated in:

- A Australia
- B Scotland
- *C England**
- D United States

273. 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

274. Which livestock product has the highest consumption rate in the United States?

- A Lamb
- B Goat
- C Pork
- *D Beef**

275. Which of the following elements is not a component of a carbohydrate?

- *A Nitrogen**
- B Oxygen
- C Carbon
- D Hydrogen