

**2023 Sacramento County Fair
Purple Circle Test Bank**

1. Which of the following terms refers to adapting the behavior of animals to fit the need of humans is called:
 - a) training
 - b) imprinting
 - c) domestication
 - d) culling

2. Most present-day sheep descended from the wild sheep called Moufflons and _____.
 - a) Markhors
 - b) Asiatic urial
 - c) Meleagris
 - d) Struthis camelus

3. Livestock production faces the greatest scrutiny and potential lawsuits in which of the following areas?
 - a) Facilities design
 - b) Predator control
 - c) Nutrition values
 - d) Waste management

4. What is the primary environmental factor that affects the efficiency of energy from feed consumption of farm animals?
 - a) Air temperature
 - b) Humidity
 - c) Precipitation
 - d) Wind

5. Which amino acid listed is essential in swine rations?
 - a) Alanine
 - b) Arginine
 - c) Glycine
 - d) Proline

6. 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 D
 - d) Vitamin E

7. Which trait in sheep has the lowest heritability estimate?
 - a) mature weight
 - b) rib eye area
 - c) yearling weight
 - d) feed efficiency

8. Mating animals of the same breed is referred to as which of the following?
 - a) linebreeding
 - b) grading up

- c) inbreeding
- d) straight breeding

9. Which is the oldest breed of cattle developed in the United States using Brahman as a foundation breed based on breeding records and NOT the formation of the breed association?
- a) Beefmaster
 - b) Santa Gertrudis
 - c) Brangus
 - d) Braford
10. Which of the following cattle breeds has the lowest birth weight used in performance testing programs?
- a) Shorthorn
 - b) Chianina
 - c) Charolais
 - d) Simmental
11. Which of the following beef cattle breeds has the heaviest birth weight for calves of either sex for performance testing?
- a) Angus
 - b) Maine Anjou
 - c) Chianina
 - d) Limousin
12. Cattle with a U.S. Quality Grade of “Prime” will have a _____ degree of marbling grade.
- a) Slight
 - b) Moderate
 - c) Slightly Abundant
 - d) Moderately Abundant
13. Which breed of swine has an average litter size ratio of 100 when compared to other breeds?
- a) Berkshire
 - b) Landrace
 - c) Hampshire
 - d) Yorkshire
14. Which disease affects the turbinate bones in swine?
- a) Actinobacillus Pleuropneumoniae
 - b) Eperythrozoonosis
 - c) Atropic Rhinitis
 - d) Leptospirosis
15. The sudden death of heavily muscled hogs is referred to as::
- a) Porcine Circivirus
 - b) Mycoplasmal Pneumonia
 - c) Porcine Stress Syndrome
 - d) Porcine Cardiac Complex
16. Which classifications of sheep have better banding instinct (or flocking)?
- a) Crossbred wool breeds

- b) Long wool breeds
 - c) Medium wool breeds
 - d) Fur sheep
17. The production of mohair is the main function of which goat breed?
- a) Angora
 - b) Nubian
 - c) Boer
 - d) Toggenburg
18. A majority of meat goats are a cross of Spanish goats and goats. a) Angora
- b) Toggenburg
 - c) Nubian
 - d) Boer
19. Scrapie is a disease of both sheep and goats that affects the:
- a) brain
 - b) digestive tract
 - c) skin
 - d) lungs
20. American breeds of swine originate from two wild stocks; European wild boar: *Sus scrofa* and the East Indian Pig: *Sus* .
- a) caballus
 - b) vittatus
 - c) camelus
 - d) hicus
21. Which species of livestock is the most efficient in converting feed calorie intake(energy efficiency) and converting crude protein in feed to edible protein (protein efficiency) meat?
- a) Cattle
 - b) Goats
 - c) Lambs
 - d) Swine
22. Which state ranks in the top ten for production of each of the species of cattle, swine, sheep and goats?
- a) Texas
 - b) California
 - c) Montana
 - d) Iowa
23. Which trait in beef cattle has the highest heritability estimate?
- a) Rib eye area
 - b) Yearling weight
 - c) Carcass grade
 - d) Weaning weight
24. Which trait in swine has the lowest heritability estimate?
- a) Loin muscle area
 - a) Birth weight

- b) Feed efficiency
 - c) Back fat
25. Which of the following is an example of a homozygous (dominant) gene pair? a) PP
b) Pp
c) pP
d) pp
26. In the reproductive system the testicles produce the hormone:
a) Progesterone
b) Estrogen
c) Testosterone
d) Melengestrol acetate
27. The average length of gestation for goats is:
a) 114 days
b) 148 days
c) 151 days
d) 201 days
28. The period of time which an animal is pregnant is called:
a) Parturition
b) Estrus
c) Ovulation
d) Gestation
29. When organisms are genetically identical they are said to be:
a) Clones
b) Twins
c) Genetically engineered
d) Siblings
30. Porcine Somatotropin (pST) is a protein produced naturally in which gland of the pig? a) Lymph
b) Pituitary
c) Reproductive
d) Endocrine
31. Which trait in cattle has the greatest advantage when crossbreeding over non-crossbred cattle? a) Feed Efficiency
b) Carcass Quality
c) Fertility
d) Yearling
32. Which breed of beef cattle rank first in the number of individuals registered on an annual basis? a) Angus
b) Red Angus
c) Charolais
d) Hereford
33. Which breed of cattle listed did NOT originate in France?

- a) Salers
- b) Maine Anjou
- c) Chianina
- d) Blonde d'Aquitaine

34. Which breed of cattle listed is naturally polled?

- a) Romagnola
- b) Galloway
- c) Charolais
- d) Highland

35. Swine are typically identified for registration by the use of:

- a) Tattoos
- b) Ear Tags
- c) Ear Notches
- d) Freeze Brands

36. Which of the following breeds of swine originated in Ireland?

- a) Tamworth
- b) Landrace
- c) Berkshire
- d) Hereford

37. Which state listed has the largest number of sheep produced?

- a) Iowa
- b) South Dakota
- c) Montana
- d) California

38. Which breed of medium wool sheep has the characteristics of white ears, face, nose, and legs? a) Hampshire

- b) Shropshire
- c) Dorset
- d) Southdown

39. Which breed of sheep is known for the rams being horned or polled while the ewes are always polled? a) Merino

- b) Cheviot
- c) Dorset
- d) Columbia

40. Which classification of sheep are primarily bred for meat production?

- a) Fine wool
- b) Medium wool
- c) Long wool
- d) Crossbred wool

41. Which breed of sheep has the strongest flocking instinct?

- a) Rambouillet
- b) Suffolk

- c) Leicester
- d) Shropshire

42. The section of the vertebrae that makes up the neck in cattle, swine, or sheep is the: a) Coccygeal vertebrae
b) Lumbar vertebrae
c) Sacral vertebrae
d) Cervical vertebrae
43. The "Femur" is classified as what type of bone?
a) long
b) short
c) flat
d) irregular
44. Which is NOT a function of the skeletal system?
a) strength
b) mineral storage
c) blood storage
d) protection
45. Hormones are organic catalysts that influence the growth and development of the body are produced in the: a) lymphatic system
b) urinary system
c) endocrine system
d) digestive system
46. In what part of the respiratory system are the passages from the nostrils and the mouth joined?
a) pharynx
b) trachea
c) bronchi
d) alveoli
47. The pancreas gland produces which hormone?
a) insulin
b) estrogen
c) testosterone
d) thyroxine
48. Which nutrients have the highest energy value?
a) proteins
b) carbohydrates
c) fiber
d) fats
49. Which amino acid is nonessential in swine rations due to being synthesized in the body? a) Arginine
b) Cystine
c) Isoleucine
d) Tryptophan

50. Which major mineral is often lacking in animal rations is:
- a) selenium
 - b) calcium
 - c) copper
 - d) iodine
51. The proportion of the total variation in offspring from parents due to additive gene effects: a) estimate
- b) heterosis
 - c) hybrid vigor
 - d) heritability
52. Which trait in beef cattle has the highest heritability estimate?
- a) ribeye area
 - b) birth weight
 - c) carcass grade
 - d) dressing percent
53. The diploid number (pairs of chromosomes) for sheep is:
- a) 27
 - b) 36
 - c) 19
 - d) 12
54. Which gland in the male produces the sperm cells?
- a) vas deferens
 - b) urethra
 - c) epididymis
 - d) testicles
55. The average age for cattle to reach puberty is:
- a) 10-12 months
 - b) 4-6 months
 - c) 12-14 months
 - d) 6-8 months
56. What is the average number of days in the length of gestation for sheep? a) 114
- b) 121
 - c) 148
 - d) 162
57. The release of the egg from the ovary is called:
- a) fertilization
 - b) ovulation
 - c) parturition
 - d) reproduction
58. Which factor does NOT affect the demand for beef?
- a) number of people

- b) location of consumers
- c) income per person
- d) meat preferences

59. Which region of the United States produces the most beef cattle?
- a) Pacific
 - b) Cornbelt
 - c) Southwest
 - d) Lake States
60. How many breeds of beef cattle are available to producers in the United States? a) 12
- b) 20
 - c) 33
 - d) 50+
61. The Chianina breed of beef cattle which is one of the oldest originated in which country? a) France
- b) Australia
 - c) Italy
 - d) Egypt
62. Which breed of cattle was the first to have a herdbook published in the United States? a) Shorthorn
- b) Hereford
 - c) Angus
 - d) Charolais
63. Which breed of cattle is classified as a *Bos indicus* type?
- a) Pinzgauer
 - b) Simmental
 - c) Galloway
 - d) Brahman
64. What percent of cash income from livestock and crops come from beef in the United States? a) 7%
- b) 18%
 - c) 23%
 - d) 31%
65. Which of the following wholesale cuts of beef are high-value?
- a) chuck
 - b) plate
 - c) brisket
 - d) rib
66. What is the standard number of days that beef cattle weaning weights are adjusted to? a) 180
- b) 205
 - c) 225
 - d) 260

67. Which breed of beef cattle has the highest standard birth weight in performance testing? a) Angus
b) Maine Anjou
c) Hereford
d) Shorthorn
68. What term refers to the general conformation of a beef market animal? a) muscling
b) finish
c) type
d) merit
69. When judging beef breeding classes, the proper term for the amount of fat cover is: a) condition
b) finish
c) grease
d) backfat
70. The normal average body temperature for healthy beef cattle is:
a) 98.6°F
b) 99.9°F
c) 100.1°F
d) 101.5°F
71. What is the length of time that bacteria causing Anthrax can remain in the soil? a) 90 days
b) 18 months
c) 10 years
d) 40 years
72. Pinkeye the common name of this disease carried by insects that affects the eyes of the animal: a) Leptospirosis
b) Infectious Keratitis
c) Brucellosis
d) Blackleg
73. Which nutritional disease is a heart condition of beef cattle at high altitudes?
a) Brisket Disease
b) Founder
c) Bloat
d) Hardware Disease
74. White Muscle disease is caused by a deficiency of the trace element:
a) copper
b) selenium
c) calcium
d) iron
75. Which state currently produces the most hogs?
a) Oklahoma

- b) Iowa
- c) Texas
- d) Indiana

76. Which breed of swine has the highest performance in average litter size ratio? a) Yorkshire
b) Berkshire
c) Poland China
d) Hampshire
77. Which breed of swine is known to produce the largest loin muscle area based on performance tests? a) Yorkshire
b) Chester White
c) Landrace
d) Hampshire
78. The oldest known breed of swine developed in the early 1700's:
a) Hampshire
b) Duroc
c) Berkshire
d) Poland China
79. A visual evaluation of the amount of muscle on a hog is best seen by looking at which view of the hog? a) side
b) rear
c) front
d) top
80. What term refers to the degree of refinement of head, hair, hide, and bone of the live hog? a) finish
b) soundness
c) proportion
d) quality
81. Which class of sheep is used primarily for meat production?
a) Fine Wool
b) Medium Wool
c) Long Wool
d) Crossbred Wool
82. Since 1970, which breed of sheep has had the largest number registered with their breed association? a) Hampshire
b) Rambouillet
c) Southdown
d) Suffolk
83. Which fine wool breed of sheep originated in the United States?
a) Debouillet
b) Merino
c) Rambouillet
d) Corriedale

84. The backfat on a market lamb should measure at the twelfth rib.
- a) 0.05 to 0.10 inches
 - b) 0.15 to 0.20 inches
 - c) 0.25 to 0.30 inches
 - d) 0.35 to 0.50 inches
85. Range production accounts for percent of the total sheep production in the United States. a) 10
- b) 30
 - c) 50
 - d) 70
86. The most commonly used method of classifying sheep is by:
- a) Carcass type
 - b) Point of origin
 - c) Type of wool
 - d) Number of young produced
87. A lack of what substance in the blood causes milk fever in sheep?
- a) Vitamin K
 - b) Calcium
 - c) Vitamin D
 - d) Zinc
88. What type of parasites are the most serious health problem for sheep?
- a) external
 - b) internal
 - c) live
 - d) mutated
89. The science in livestock production that studies the way in which traits of parents are passed on to the offspring is
- a) hybrid vigor
 - b) heterosis
 - c) meiosis
 - d) genetics
90. Which species of livestock has a diploid number (number of pairs of chromosomes) of 19? a) swine
- b) sheep
 - c) goats
 - d) cattle
91. What takes place when a sperm cell from the male reaches an egg cell from the female? a) mitosis
- b) cell coding
 - c) fertilization
 - d) spermatozoa

92. Which trait for beef cattle has the highest heritability estimate?
- a) conformation score at weaning
 - b) birth weight
 - c) rib eye area
 - d) fat thickness
93. Which trait in swine has the lowest heritability estimate?
- a) age at puberty
 - b) loin muscle area
 - c) percent ham
 - d) birth weight
94. Genotype refers to the:
- a) combination of genes
 - b) placing of genes
 - c) number of genes
 - d) splicing of genes
95. When chromosomes pairs are divided in such a manner that each gamete has one of each type of chromosome, the process is called:
- a) meiosis
 - b) mitosis
 - c) sequencing
 - d) cell division
96. The characteristics of an animal that are inheritable are passed from one generation to the next by:
- a) sperm cells
 - b) egg cells
 - c) diploids
 - d) genes
97. Sperm cells are produced in the:
- a) epididymis
 - b) testicles
 - c) scrotum
 - d) vas deferens
98. The release of the egg cell from the ovary is called:
- a) fertilization
 - b) ovulation
 - c) parturition
 - d) fertilization
99. The average length of gestation sheep is:
- a) 114 days
 - b) 148 days
 - c) 220 days
 - d) 283 days
100. The diploid number (pairs of chromosomes) for sheep is:

- a) 27
- b) 36
- c) 19
- d) 12

101. The average age for cattle to reach puberty is:

- a) 10-12 months
- b) 4-6 months
- c) 12-14 months
- d) 6-8 months

102. Which is NOT a potential benefit of genetic engineering in livestock production?

- a) developing disease resistant animals
- b) developing new species of livestock
- c) specifying the sex of an animal before conception
- d) developing new drugs and vaccines

103. Porcine somatotropin (pST) is a protein produced in which gland of the pig?

- a) lymph
- b) pituitary
- c) reproductive
- d) endocrine

104. The mating of two animals that can be traced back to one common ancestor is:

- a) closebreeding
- b) linebreeding
- c) outcrossing
- d) grading up

105. What is a common disqualification in rules for registering animals in a breed association?

- a) weight
- b) size
- c) color markings
- d) eyes

106. The majority of beef cow herd operations have how many cows?

- a) 1-49 head
- b) 50-99 head
- c) 100-499 head
- d) Over 500 head

107. Which factor does NOT affect the demand for beef?

- a) number of people
- b) availability of imported beef
- c) income per person
- d) meat preferences

108. What is a disadvantage of raising beef?

- a) high death losses
- b) demand for beef
- c) beef nutrition requirement for roughages

d) time required to develop a cattle herd

109. How many breeds of beef cattle are available to producers in the United States?

- a) 12
- b) 20
- c) 33
- d) 50+

110. The Simmental breed of beef cattle which dates back to the Middle Ages, originated in which country?

- a) France
- b) Australia
- c) Switzerland
- d) Germany

111. Which breed of cattle was the first to be imported to the United States?

- a) Shorthorn
- b) Hereford
- c) Angus
- d) Charolais

112. Which breed of cattle is classified as a *Bos indicus* type?

- a) Pinzgauer
- b) Simmental
- c) Galloway
- d) Brahman

113. Which breed of cattle was in existence in Italy before the time of the Roman Empire?

- a) Devon
- b) Chianina
- c) Beefmaster
- d) Brahman

114. In 1927, the United States Congress appropriated money for which breed of cattle that were almost extinct?

- a) Polled Hereford
- b) Red Angus
- c) Santa Gertrudis
- d) Texas Longhorn

115. The Beef Promotion and Research Act of 1985 established a checkoff amount for every head of beef sold in the United States of:

- a) \$.50
- b) \$1.00
- c) \$2.00
- d) \$5.00

116. The method of marketing where cattle are sold by public bidding to the highest bidder is:

- a) public stockyards
- b) contract sales
- c) auction markets
- d) terminal markets

117. Shrinkage of cattle as they are moved to market is NOT affected by:
- a) market price
 - b) weather
 - c) sex of the animal
 - d) length of the fillback period
118. A beef carcass with slightly abundant marbling with a maturity level A will be what grade?
- a) Prime
 - b) Choice
 - c) Select
 - d) Cutter
119. Which beef cattle yield grade indicates the highest yield of lean meat?
- a) Yield Grade 7
 - b) Yield Grade 5
 - c) Yield Grade 3
 - d) Yield Grade 1
120. Which breed of swine has the highest performance in average litter size ratio?
- a) Yorkshire
 - b) Berkshire
 - c) Poland China
 - d) Hampshire
121. Which breed of swine was developed in the United States
- a) Berkshire
 - b) Poland China
 - c) Yorkshire
 - d) Pietrain
122. Approximately what percent of the market hogs sold in the United States are priced on the basis of carcass merit?
- a) 25%
 - b) 45%
 - c) 70%
 - d) 90%
123. A futures contract for marketing hogs is based on units. One trading unit equals:
- a) 10,000 pounds
 - b) 20,000 pounds
 - c) 30,000 pounds
 - d) 40,000 pounds
124. Which state produces the most sheep and lambs?
- a) California
 - b) Wyoming
 - c) Oklahoma
 - d) Ohio
125. The majority of sheep operations produce:

- a) less than 100 head
- b) 100 to 499 head
- c) 500 to 1000 head
- d) more than 1000 head

126. Which breed of sheep is classified as a fine wool breed?

- a) Hampshire
- b) Rambouillet
- c) Southdown
- d) Corriedale

127. Lambs under three months of age weighing less than 60 pounds sold in specialty markets between Christmas and Easter are called:

- a) Hothouse lambs
- b) Spring lambs
- c) Veal lambs
- d) Holiday lambs

128. Lambs prices average higher during which period of the year?

- a) June through August
- b) September through November
- c) December through February
- d) March through May

129. The thickness of fat over the ribeye determines the yield grade for all slaughter sheep. A slaughter sheep with 0.26 to 0.35 inches of fat will grade:

- a) Yield Grade 2
- b) Yield Grade 3
- c) Yield Grade 4
- d) Yield Grade 1

130. Which species of livestock descended from two wild stocks known as “*Sus scrofa*” and “*Sus vittatus*”?

- a) swine
- b) sheep
- c) goats
- d) cattle

131. Which species of livestock does NOT belong to the family Bovidae?

- a) sheep
- b) cattle
- c) swine
- d) goats

132. Which species of livestock is the most efficient into converting feed into energy and protein?

- a) cattle
- b) goats
- c) sheep
- d) swine

133. How many different drugs such as Insulin and Epinephrine used by humans for medical purposes are made from animal by-products?
- a) more than 100
 - b) 70 to 80
 - c) 40 to 50
 - d) less than 25
134. Average beef consumption in the United States ranges from pounds per person per year. a) 25 - 35
- b) 40 - 50
 - c) 60 - 70
 - d) 85 - 95
135. According to USDA, the greatest expense in the production of livestock is: a)
- contract and hired labor
 - b) livestock purchased
 - c) fuel and electricity
 - d) feed purchased
136. Which of the following states is in the Top 10 in the production of beef cattle, sheep, and swine? a)
- Texas
 - b) Nebraska
 - c) California
 - d) Iowa
137. Much of the flesh referred to as meat in farm animals is composed of :
- a) skeletal muscle
 - b) smooth muscle
 - c) cardiac muscle
 - d) unstriated muscle
138. The part of the respiratory system where the passages from the nostrils and the mouth are joined:
- a) pharynx
 - b) larynx
 - c) trachea
 - d) nasal cavity
139. Progesterone and Estrogen are both hormones produced in which gland?
- a) testes
 - b) adrenal
 - c) pancreas
 - d) ovary
140. In the ruminant digestive system, where is hydrochloric acid produced?
- a) rumen
 - b) omasum
 - c) reticulum
 - d) abomasum
141. Which amino acid listed is essential in swine rations?
- a) Cystine

- b) Lysine
- c) Glycine
- d) Proline

142. Which fat-soluble vitamin is associated with good bone development?

- a) Vitamin A
- b) Vitamin D
- c) Vitamin E
- d) Vitamin K

143. Diseases present in the animal's body at levels too low to cause visible effects are:

- a) subtherapeutic
- b) chemobiotics
- c) probiosis
- d) subclinical

144. Feed additives used to control worms and other internal parasites are:

- a) Coccidiostats
- b) Anthelmintics
- c) Probiotics
- d) Antimicrobials

145. is a synthetic hormone feed additive that suppresses estrus.

- a) Monesin
- b) Melengestrol acetate
- c) Bovatec
- d) Estrogen

146. Which agency regulates the use of feed additives in the United States?

- a) United States Department of Agriculture (USDA)
- b) Federal Register (FR)
- c) Food and Drug Administration (FDA)
- d) Animal Health and Production Division (AHPD)

147. Which is NOT a consideration for the use of feed additives?

- a) increased nutrient content
- b) improved feed efficiency
- c) promote faster gains
- d) improved animal health

148. was one of the exotic breeds of cattle from Europe introduced into the United States in the 1960's and 1970's.

- a) Red Angus
- b) Murray Grey
- c) Chianina
- d) Santa Gertrudis

149. Since 1970, the top ranked breed of beef cattle in terms of number registered has been the:

- a) Hereford
- b) Limousin
- c) Simmental

d) Angus

150. Which breed of cattle is the most popular in Europe?

- a) Limousin
- b) Maine-Anjou
- c) Simmental
- d) Shorthorn

151. Which breed of cattle was originally developed as a draft or work animal?

- a) Maine-Anjou
- b) Galloway
- c) Brahman
- d) Hays Converter

152. Which breed of cattle is believed to have descended from *Bos longifrons*, a small type of aboriginal cattle in Britain?

- a) Pinzgauer
- b) Gelbvieh
- c) Shorthorn
- d) Devon

153. Which breed is classified as a “dual-purpose” breed (milk and meat)?

- a) Highland
- b) South Devon
- c) Romagnola
- d) Limousin

154. Frame score is a measurement based on observation and height measurement when calves are evaluated at days of age.

- a) 125
- b) 205
- c) 285
- d) 305

155. 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) MPV
- b) SPF
- c) OSB
- d) EPD

156. The carcass merit of cattle is expressed by yield grade. Which yield grade is assigned when a carcass yields from 50.1% - 52.3%?

- a) yield grade 1
- b) yield grade 2
- c) yield grade 3
- d) yield grade 4

157. Which of the following terms should only be used when talking reasons for breeding cattle and not for market classes?

- a) muscling

- b) balance
- c) condition
- d) finish

158. A chronic degenerative disease that affects the central nervous system of cattle (also called “Mad Cow Disease”):

- a) Bovine Spongiform Encephalopathy
- b) Bovine Respiratory Syncytial Virus
- c) Infectious Bovine Rhinotracheitis
- d) Keratoconjunctivitis

159. Cattle infected with this disease often abort during the last half of pregnancy.

- a) Enteritis
- b) Paratuberculosis
- c) Actinobacillosis
- d) Brucellosis

160. Brisket disease affects the in cattle?

- a) heart
- b) brain
- c) lungs
- d) stomach

161. Which information is NOT typically required for the registration of individual hogs?

- a) Date farrowed
- b) Ear notches
- c) Number of teats
- d) Name of sire

162. Application of genetic principles to performance records in swine selection results in:

- a) Estimated Breeding Values
- b) Expected Progeny Difference
- c) Performance Selection Index
- d) Genetic Values Index

163. Normal temperature range for swine is:

- a) 97.2°F to 98.2°F
- b) 98.6°F to 99.2°F
- c) 100.1°F to 100.9°F
- d) 102.0°F to 103.6°F

164. A swine nutritional health problem caused by a lack of iron in the diet.

- a) Parakeratosis
- b) Rickets
- c) Anemia
- d) Hypoglycemia

165. Which breed of sheep is classed as a Medium Wool?

- a) Shropshire
- b) Corriedale

- c) American Merino
- d) Columbia

166. The breed of sheep noted for producing a 200 to 250 percent lamb crop:

- a) Finnsheep
- b) Leicester
- c) Delaine Merino
- d) Southdown

167. A majority of meat goats are a cross of Spanish goats and goats.

- a) Angora
- b) Boer
- c) Nubian
- d) Toggenburg

168. Bacterial disease that affects both sheep and goats when the animal has a wound. Symptoms include stiffness, rigid jaw, and inability to eat.

- a) Vibriosis
- b) Tetanus
- c) Enterotoxemia
- d) Blue Tongue

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

- a) brain
- b) digestive tract
- c) skin
- d) lungs

170. The most serious health problem of sheep and goats is:

- a) External parasites
- b) Internal parasites
- c) Nutritional deficiencies
- d) Bacterial diseases

171. Which species of livestock has a diploid number of 27 (pairs of chromosomes)?

- a) Cattle
- b) Goats
- c) Sheep
- d) Swine

172. Sheep have the highest heritability estimate for which of the following traits?

- a) Staple length
- b) Feed efficiency
- c) Conformation score
- d) Fat thickness

173. The physical appearance of an animal is referred to as it:

- a) Phenotype
- b) Genotype
- c) Dominance

d) Codominance

174. Which hormone is responsible for the masculine appearance in animals?

- a) Progesterone
- b) Estrogen
- c) Masterone
- d) Testosterone

175. Which species of livestock reaches puberty based on the season and not age?

- a) Cattle
- b) Goats
- c) Sheep
- d) Swine

176. The length of gestation for swine is an average of how many days?

- a) 283 days
- b) 151 days
- c) 148 days
- d) 114 days

177. The most intensive form of inbreeding is called?

- a) Purebreeding
- b) Closebreeding
- c) Linebreeding
- d) Outcrossing

178. When crossbreeding beef cattle with a 2-breed cross, which trait has the advantage over non-crossbred cattle?

- a) Carcass traits
- b) Yearling weight
- c) Feed efficiency
- d) Disease immunity

179. What percent of beef cattle cow-calf operations in the United States have less than 50 head of cows? a)

- 21.5%
- b) 43.5%
- c) 52.5%
- d) 77.5%

180. Which breed of beef cattle has been the leader on total number registered since 1970?

- a) Simmental
- b) Hereford
- c) Angus
- d) Charolais

181. Which breed of beef cattle did NOT originate in Scotland?

- a) Angus
- b) Galloway
- c) Shorthorn
- d) Highland

182. Which English breed of cattle was originally called Durhams?
- a) Hereford
 - b) Angus
 - c) Shorthorn
 - d) Devon
183. Which breed of beef cattle is NOT white in color?
- a) Marchigiana
 - b) Saler
 - c) Charolais
 - d) Chianina
184. In beef cattle, a muscle conformation score for feeder calves of 1 indicates:
- a) An exceptionally thin calf
 - b) Light muscled calf
 - c) Heavy muscled calf
 - d) Double muscled calf
185. Which of the following breeds of beef cattle has the heaviest birth weight for calves of either sex for performance testing?
- a) Angus
 - b) Charolais
 - c) Hereford
 - d) Limousin
186. If a steer produces a yield of 47.8% to 50% of carcass weight in boneless retail cuts, it has a yield grade of:
- a) 1
 - b) 2
 - c) 3
 - d) 4
187. The Beef Check-off of \$1 per head for every head of beef sold in the United States was established by:
- a) The Beef Promotion and Research Act of 1985
 - b) The Packers and Stockyard Act
 - c) The Beef Check-Off Referendum of 1992
 - d) National Livestock Marketing Association
188. Markets where cattle are sold by public bidding, with the animals going to the highest bidder, is:
- a) Terminal market
 - b) Direct selling market
 - c) Electronic market
 - d) Auction market
189. Which of the following states has the highest number of hogs and pigs? a)
- Illinois
 - b) Nebraska
 - c) Missouri
 - d) North Carolina

190. In comparing breed performance for litter size in swine, which breed has the highest litter size ratio? a)
Hampshire
b) Landrace
c) Duroc
d) Chester White
191. Which purebred of swine can be traced back nearly 300 years?
a) Yorkshire
b) Berkshire
c) Hampshire
d) Tamworth
192. Which of the breeds listed does not have red as one of its standard colors?
a) Tamworth
b) Hereford
c) Duroc
d) Pietrain
193. Which breed of hog is black with a white belt that encircles the fore part of the body?
a) Hereford
b) Berkshire
c) Poland China
d) Hampshire
194. The four primal cuts of a hog carcass represent what percent of the total value of the animal?
a) 44%
b) 56%
c) 75%
d) 82%
195. Symbol III represents the ideal market hog of the future. One production characteristic of Symbol III is a live market weight of:
a) 210 pounds
b) 240 pounds
c) 270 pounds
d) 300 pounds
196. 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¢
b) 60¢
c) 75¢
d) \$1.00
197. The major objection of boar meat is the odor of the meat called boar taint. One compound causing boar taint is:
a) Skatole
b) Testosterone
c) Sulfamethazine
d) Progesterone

198. 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%
199. A barrow or gilt having a U.S. No. one grade will produce a chilled carcass yielding or more of the four lean cuts.
- a) 44.6 percent
 - b) 52.4 percent
 - c) 58.2 percent
 - d) 60.4 percent
200. A barrow that grades a U.S. Number 2 and is thick muscled will have a back fat measurement of:
- a) Less than 1.00 inch
 - b) 1.00 – 1.24 inches
 - c) 1.25 – 1.49 inches
 - d) 1.50 – 1.74 inches
201. What month of the year is the price of slaughter hogs the highest on average?
- a) March
 - b) July
 - c) October
 - d) December
202. What is the unit of trading when marketing live hogs with a futures contract?
- a) 20,000 pounds (around 90 head)
 - b) 30,000 pounds (around 140 head)
 - c) 40,000 pounds (around 180 head)
 - d) 50,000 pounds (around 230 head)
203. Which listed state has the highest number of sheep and lambs?
- a) Arizona
 - b) Montana
 - c) Idaho
 - d) California
204. The Columbia breed of sheep is classified as:
- a) Fine wool
 - b) Medium wool
 - c) Long wool
 - d) Crossbred wool
205. Which Medium Wool breed of sheep has a white face?
- a) Dorset
 - b) Hampshire
 - c) Shropshire
 - d) Suffolk

206. Which Medium Wool breed was developed in the United States? a)
Dorset
b) Hampshire
c) Montadale
d) Southdown
207. is a term for the general build of a sheep.
a) Style
b) Quality
c) Type
d) Balance
208. Which breed of goat is primarily used for breeding meat goats?
a) Boer
b) Angora
c) Toggenburg
d) Pygmy
209. Sheep that are 7 to 12 months of age have the age classification of:
a) Hothouse lambs
b) Lambs
c) Yearlings
d) Muttons
210. Which live grade of sheep is used only on lambs and yearlings and NOT for slaughter lambs? a)
Prime
b) Choice
c) Good
d) Utility
211. The retail cut of lamb identified as American-Style Roast comes from the:
a) Leg
b) Loin
c) Rack
d) Shoulder
212. Lamb prices vary throughout the year and reach a high during which time?
a) December to February
b) March to May
c) June to August
d) September to November
213. Goat meat is marketed under the name:
a) Mutton
b) Venison
c) Veal
d) Chevon
214. In the classification of farm animals; cattle, sheep, and goats all belong to the same class, order, and family. The family they belong to is:

- a) Artiodactyla
- b) Bos indicus
- c) Bovidae
- d) Moufflons

215. Which species of domestic livestock is considered the least intelligent?

- a) Cattle
- b) Goats
- c) Sheep
- d) Swine

216. Which animal by-product derived from the pancreas is used in the treatment of diabetes? a)

- Cortisone
- b) Insulin
- c) Epinephrine
- d) Heparin

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

- a) Beef
- b) Lamb
- c) Goat
- d) Pork

218. Ractopamine Hydrochloride is a growth promoter that increases feed efficiency, encourages muscle growth, and lower fat content in which species?

- a) Cattle
- b) Goats
- c) Sheep
- d) Swine

219. Which state has greatest beef production?

- a) Oklahoma
- b) Iowa
- c) California
- d) Nebraska

220. 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

221. The state with the highest pork production is:

- a) North Carolina
- b) Minnesota
- c) Texas
- d) Indiana

222. Which breed of swine is the oldest of the pure breeds?

- a) Yorkshire

- b) Hampshire
- c) Tamworth
- d) Berkshire

223. Which breed of swine was originally known as the Thin Rind?

- a) Poland China
- b) Hereford
- c) Hampshire
- d) Landrace

224. Which breed of swine is the most prolific for average litter size?

- a) Duroc
- b) Chester White
- c) Hampshire
- d) Landrace

225. The National Pork Board developed a model of the ideal market hog known as:

- a) Perfection II
- b) Symbol III
- c) Jasper
- d) Vision III

226. A visual evaluation of the amount of muscle on a hog is best seen by looking at which view of the animal?

- a) Side
- b) Rear
- c) Front
- d) Top

227. What percentage of the total value of the carcass of a hog is made up of the four primal cuts?

- a) 45%
- b) 60%
- c) 75%
- d) 80%

228. Which state has the highest production of sheep and lambs?

- a) Wyoming
- b) South Dakota
- c) Ohio
- d) California

229. Which classification of sheep is bred primarily for meat production?

- a) Medium wool sheep
- b) Fine wool sheep
- c) Hair sheep
- d) Fur sheep

230. Which breed of sheep was developed in the United States?

- a) Hampshire

- b) Dorset
- c) Southdown
- d) Debouillet

231. Which breed of goat main function is the production of mohair?

- a) Angora
- b) Nubian
- c) Boer
- d) Toggenburg

232. Which breed of goat is used in crossbreeding programs to increase meat production? a)

- Boer
- b) Angora
- c) Spanish
- d) Saanen

233. Proteins are organic compounds made of _____.

- a) Amino Acids
- b) Nitrogen Free Extracts
- c) Anhydrous Ammonia
- d) Glycolytic Pathways

234. To prevent anemia, it is highly encouraged to give baby pigs an injection of _____. a)

- Vitamin A
- b) Iron
- c) Selenium
- d) Vitamin C

235. _____ is a method where calves are given supplemental feeds in an area where larger cattle cannot reach.

- a) Deep Feeding
- b) Creep Feeding
- c) Bunk Feeding
- d) Free Feeding

236. The scientific (Genus and Species) name for sheep is _____.

- a) *Sus Scrofa*
- b) *Ovis Aries*
- c) *Capra Hircus*
- d) *Gallus Gallus*

237. Genotype refers to the genetic makeup of an animal, while _____ refers to the outward appearance of an animal.

- a) Heritability
- b) Prototype
- c) Phenotype
- d) Incomplete Genotypic Expression

238. Of the digestive structures listed, _____ is the only one that would not be found in swine.

- a) Villi

- b) Large Intestine
- c) Omasum
- d) Esophagus

239. The use of low doses of medicines like antibiotics in feeds to prevent illness is referred to as

- _____.
- a) Subcutaneous
 - b) Suboptimization
 - c) Subtherapeutic
 - d) Substration

240. The production of gametes is the result of _____, a type of cell division. a)

- Mitosis
- b) Meiosis
- c) Zygotosis
- d) Genetic Isolation

241. Sometimes called hybrid vigor, _____ is a term used to describe a situation when a combination of genes produces offspring that are better than either of the parents.

- a) Heterosis
- b) Heterozygous
- c) Heterogeneous
- d) Homozygous

242. _____ and Milo are the most commonly used grains when finishing beef cattle.

- a) Wheat
- b) Sorghum
- c) Corn
- d) Oats

243. _____ is a sexually transmitted disease in cattle that can cause low fertility and abortion in cattle.

- a) Leptospirosis
- b) Listeriosis
- c) Prolapse
- d) Trichomoniasis

244. _____ is caused by a lack of sugar in the diet.

- a) Enterotoxemia
- b) Hyperglycemia
- c) Hypoglycemia
- d) Parakeratosis

245. A large dose of medicine in a liquid form that is ingested or administered by mouth is called a

- _____.
- a) Drench
 - b) Soak
 - c) Dip
 - d) Injection

246. Although the Boer breed is more common in meat-goat production, newer breeds like the New Zealand

- _____ have been developed.
- a) Angora
 - b) Kiko
 - c) Nubian
 - d) Toggenburg
247. _____ is the most important nutrient partially because it is the most limiting and, without it, the animal will die faster than not having any other nutrient.
- a) Protein
 - b) Lipids
 - c) Carbohydrates
 - d) Water
248. _____ is the term used to describe when female livestock are fertile and receptive to breeding.
- a) Isthmus
 - b) Placenta
 - c) Dystocia
 - d) Estrus
249. _____ metabolism is what provides for essential life functions that maintain life for animal.
- a) Basic
 - b) Fundamental
 - c) Essential
 - d) Basal
250. Often diagnosed by a swollen left side, _____ is a condition in livestock caused by a buildup of froth or gas in the rumen.
- a) Colic
 - b) Bloat
 - c) Acidosis
 - d) Scours