

**2019 Iowa State 4-H/FFA Livestock Judging Contest 8/24/19**

**LIVESTOCK EVALUATION TEST**

- 1) Marbling is also known as?
  - a. Intramuscular fat
  - b. Subcutaneous fat
  - c. Seam fat
  - d. Intermuscular fat
  
- 2) Which term estimates the portion of the animal that will be used as edible product?
  - a. Quality Grade
  - b. Yield Grade
  - c. Dressing Percent
  - d. Hot carcass weight
  
- 3) What nutrient is most essential to animal survival?
  - a. Protein
  - b. Carbohydrates
  - c. Vitamins/Minerals
  - d. Water
  
- 4) Which animal's digestive/gastro-intestinal tract is most similar to humans?
  - a. Cattle
  - b. Swine
  - c. Sheep
  - d. Goat
  
- 5) Cattle that are of the same breed composition and sex, are similar in age, and have been managed under the same conditions are considered to be a what?
  - a. Sire group
  - b. Maternal group
  - c. Breeding group
  - d. Contemporary group
  
- 6) Besides marbling, what other factor contributes to determining beef carcass quality grades?
  - a. Gender
  - b. Percent KPH
  - c. Skeletal ossification
  - d. 12<sup>th</sup> rib fat thickness

- 7) The average length of the estrus cycle for sheep is?
- 12 days
  - 17 days
  - 21 days
  - 22 days
- 8) Which factor is used to determine Yield Grade in sheep carcasses?
- Flank streaking
  - Body wall thickness
  - 12<sup>th</sup> rib fat thickness
  - Loin eye area
- 9) Adapting animal behavior to fit the needs of people is referred to as?
- Livestock evaluation
  - Animal production
  - Domestication
  - Animal husbandry
- 10) Which of the following is considered a maternal breed of swine?
- Hampshire
  - Landrace
  - Chester White
  - Duroc
- 11) An animal that has excessive set to their hock could be described as being:
- Sickle hocked
  - Bow legged
  - Pidgeon toed
  - Post-legged
- 12) The average dressing percent for hogs is closest to?
- 50%
  - 60%
  - 70%
  - 80%
- 13) The mating of animals in different families within the same breed is known as?
- Outcrossing
  - Linebreeding
  - Crossbreeding
  - Inbreeding

- 14) Which of the following breeds of sheep have a black face and legs, with a long thin ear?
- Hampshire
  - Dorset
  - Southdown
  - Suffolk
- 15) When judging a market steer class which term is used to describe the amount of fat cover on an animal?
- Fluff
  - Carcass Merit
  - Quality
  - Finish
- 16) A steer, throughout his life would have an average feed to gain ratio closest to?
- 2 to 1
  - 4 to 1
  - 7 to 1
  - 11 to 1
- 17) Which trait is not considered when calculating terminal bioeconomic indexes in beef cattle (i.e. \$Beef, \$CHB, TI, MTI, etc.)?
- Milk
  - Yearling weight
  - Marbling
  - Ribeye area
- 18) Why are weak pasterns criticized in swine?
- They indicate a light muscled animal
  - They are the result of excess pressure on the animal's feet
  - They tend to lead to torn dewclaws and lameness
  - They indicate an over-conditioned animal
- 19) \_\_\_\_\_ 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.
- OSB
  - EPD
  - SPF
  - MPV

- 20) Which of the following is a continental breed of cattle
- Angus
  - Charolais
  - Hereford
  - Shorthorn
- 21) Considering most sows are farrowed in crates, which would be the most concerning flaw when selecting for replacement gilts?
- Low fronted
  - Light muscled
  - Short bodied
  - Bow legged
- 22) Acute stress in cattle prior to harvest can lead to which carcass flaw/discount?
- Yield grade 4
  - Dark cutters
  - Carcass ossification
  - No-roll
- 23) What is the number one reason cows are culled from the herd in the U.S.?
- Structure problems
  - Udder problems
  - Docility
  - Reproductive failure
- 24) Which swine selection index swine is calculated solely by maternal traits (i.e. NBA, 21-day litter weight, WTE)
- Sow Productivity Index (SPI)
  - Maternal Line Index (MLI)
  - Terminal Sire Index (TSI)
  - Weight per day of Age (WDA)
- 25) Which Codon 171 status below suggests that the individual is Scrapie susceptible?
- NN
  - RR
  - QR
  - QQ

- 26) In young market lambs, quality grade is determined by what?
- 12<sup>th</sup> rib fat thickness
  - Loin eye area
  - Flank streaking
  - Dressing percentage
- 27) The genetic makeup of an animal is called its:
- Genotype
  - Phenotype
  - Dominance
  - Recessiveness
- 28) The record of the ancestors of a particular animal is recorded in its:
- Performance record
  - Pedigree
  - Phenotype
  - Genetic map
- 29) The term used for a castrated male goat is?
- Steer
  - Barrow
  - Wether
  - Gelding
- 30) Which of the following is not an example of a growth promotant used in livestock production
- Implants
  - Beta-agonists
  - Ionophores
  - Dried distiller's grains
- 31) Which compartment of the ruminant stomach is called the "true stomach" and where gastric and enzymatic digestions starts?
- Rumen
  - Omasum
  - Reticulum
  - Abomasum

- 32) Which classes of sheep are bred primarily for meat production?
- Fine wool breeds
  - Medium wool breeds
  - Crossbred wool breeds
  - Fur sheep breeds
- 33) The process of giving birth to a new animal is called?
- Gestation
  - Conception
  - Parturition
  - Ovulation
- 34) Which of the following correctly defines the term hybrid vigor?
- The value of the animal as a parent
  - The crossbred offspring exceeds the average of the two parental breeds
  - A group of animals of the same age, sex, and breed composition
  - The measure of how inbred an animal is
- 35) If a ewe with a Codon 171 status of QR is mated to a ram with a Codon 171 status of RR, what percentage of her offspring will be resistant to Scrapie?
- 0%
  - 25%
  - 50%
  - 100%
- 36) What is visually used by producers to identify what litter each hog belongs to?
- Ear notch
  - Brand
  - DNA Verification
  - Color pattern
- 37) The average LEA (loin eye area) for a 250 pound barrow is closest to?
- 2 square inches
  - 6 square inches
  - 10 square inches
  - 12 square inches

- 38) Which is not a known genetic defect of cattle?
- a. Curly Calf Syndrome (Arthrogryposis Mulitplex)
  - b. Idiopathic Epilepsy (IE)
  - c. Tibila Hemimelia (TH)
  - d. Porcine Stress Syndrome (PSS)
- 39) Which of the following would most closely describe a light muscled, extremely fat steer?
- a. YG 1
  - b. YG 2
  - c. YG 3
  - d. YG 4
- 40) Which of the following locations is where beef carcasses are ribbed?
- a. Between the 5<sup>th</sup> and 6<sup>th</sup> ribs]
  - b. Between the 8<sup>th</sup> and 9<sup>th</sup> ribs
  - c. Between the 11<sup>th</sup> and 12<sup>th</sup> ribs
  - d. Between the 12<sup>th</sup> and 13<sup>th</sup> ribs

**Use the following scenario to answer questions 41-44**

Rank these Limousin Bulls as they are to be used as terminal sires mated to Angus cows. All progeny will be retained through the family feedlot and sold on a balance grid system.

- 41) What percentage of offspring are to be kept as replacements?
- a. 0%
  - b. 5%
  - c. 10%
  - d. 20%
- 42) Which trait (EPDs) are the most important to evaluate for the Limousin bull?
- a. Milk
  - b. Stayability
  - c. Yearling Weight
  - d. Mainstream Terminal Index (MTI)
- 43) Which trait (EPDs) should be least emphasized for the Limousin bull in this situation?
- a. Marbling
  - b. Yearling weight
  - c. Milk
  - d. Ribeye area
- 44) What is the primary advantage of this and any crossbreeding scheme when compared to breeding purebreds?
- a. Docility
  - b. Structure
  - c. Heterosis/Hybrid vigor
  - d. Balance

**Use the following scenario to answer questions 45 and 46**

Rank these Yorkshire Boars to be utilized in a commercial operation. After years of using a HD cross (Hampshire x Duroc), the owner decides to utilize a Yorkshire sire to create highly prolific replacements. The chosen boar will be mated to HD sows, with the 80% of the resulting female progeny retained in production, while all culls are sold on a lean value basis.

45) Which of the following traits (EPDs) would be the most important for selection of the Yorkshire boars?

- a. Days to 250
- b. Back fat
- c. Sow Productivity Index (SPI)
- d. Terminal sire index (TSI)

46) What traits are the F1 HD sows expected to contribute to this cross?

- a. Milk
- b. Litter size
- c. Maternal Strengths
- d. Terminal Strengths

**Use the following Angus bull data set to answer questions 47-50**

Bull	BW	CE	WW	YW	Milk	REA	Marb
1	-1.1	13	45	86	30	.33	.79
2	3.6	4	62	101	29	.72	.48
3	2.0	6	58	94	23	.55	.61
4	1.0	8	55	90	27	.58	.52
Breed Average	1.2	6	49	87	24	.50	.55

47) Which bull would be the safest to use on first calf heifers?

- a. 1
- b. 2
- c. 3
- d. 4

48) Which bull should sire the heaviest milking daughters?

- a. 1
- b. 2
- c. 3
- d. 4

49) If labor and feed resources were scarce, which bull would be the riskiest choice to use for generating replacement females?

- a. 1
- b. 2
- c. 3
- d. 4

50) Which bull falls on the wrong side of breed average for growth?

- a. 1
- b. 2
- c. 3
- d. 4

Answers

- 1) A
- 2) C
- 3) D
- 4) B
- 5) D
- 6) C
- 7) B
- 8) C
- 9) C
- 10) B
- 11) A
- 12) C
- 13) A
- 14) D
- 15) D
- 16) C
- 17) A
- 18) C
- 19) B
- 20) B
- 21) D
- 22) B
- 23) D
- 24) A
- 25) D
- 26) C
- 27) A
- 28) B
- 29) C
- 30) D
- 31) D
- 32) B
- 33) C
- 34) B
- 35) D
- 36) A
- 37) B
- 38) D
- 39) D

- 40) D
- 41) A
- 42) D
- 43) C
- 44) C
- 45) C
- 46) D
- 47) A
- 48) A
- 49) B
- 50) A