Contestant Name:_____ **Contestant Number:**_____

Senior Quiz

_____ 1. You're deciding between two Katahdin rams to purchase for next year's lamb crop. You are looking to keep replacements to expand your flock size and improve parasite resistance. Ram A has a post-weaning fecal egg count (PFEC) breeding value of -50. Ram B has a PFEC breeding value of +50. Which ram should you utilize if you also want to improve internal parasite resistance?

a. Ram A
b. Ram B
c. Not sure. PFEC is not a relevant trait to this scenario.

_____ 2. Bull A has a weaning weight EPD of +60. Bull B has a weaning weight EPD of +50. If feeder cattle are selling for 150 cwt, how much more will calves sired by Bull A be expected to be worth than calves sired by Bull B?

a. 10 dollars b. 7.5 dollars c. 15 dollars d. 20 dollars

_____ 3. You can only deworm one of the following sheep. Which sheep would you choose?

a. FAMACHA score 1, BCS 3
b. FAMACHA score 4, BCS 2
c. FAMACHA score 3, BCS 4
d. FAMACHA score 2, BCS 2.5

_____ 4. Where is luteinizing hormone (LH) produced and what physiological response does it cause?

a. Pituitary, ovulation
b. Pituitary, follicular growth
c. Uterus, ovulation
d. Corpus luteum, maintains pregnancy

_____ 5. What hormone is released from a CIDR and what physiological response does it cause?

a. Progesterone, mimics pregnancy
b. Estradiol, proliferation of uterine lining
c. FSH (follicle stimulating hormone), follicular development
d. Estradiol, stimulates release of LH and FSH

_____ 6. A cow is bred using AI on June 1 and turned out with a clean-up bull for 60 days starting on June 17. The calf is born May 11. Which bull is the calf sired by?

a. AI bull
b. Clean up bull
c. Not sure
d. Neighbor's bull that got through the fence between June 15 and June 20

_____ 7. Which of these traits has the lowest heritability?

a. Number born b. Fiber diameter (wool) c. Weaning weight d. Ribeye Area

_____ 8. With which of the following traits would the greatest level of heterosis be exhibited in a swine crossbreeding system?

a. Number born alive b. Loin muscle area c. Days to 250 d. Fat depth

_____ 9. Anthelmintics would be utilized for which of the following conditions?

a. Bovine respiratory disease
b. Foot rot
c. PEDv
d. Parasitic gastroenteritis

_____ 10. Genomically enhanced EPDs (GE-EPDs) influence the breeding value number in what way?

a. Improved accuracy
b. Decreased accuracy
c. Increased breeding values
d. Decreased breeding values

_____ 11. What two components make up USDA beef quality grades?

a. Marbling and fat color
b. Marbling and ribeye area
c. Ribeye area and fat thickness
d. Marbling and maturity

_____ 12. New, innovative retail cuts provide opportunities to increase the value of traditionally less valuable primal cuts. The Denver and Flat Iron steaks are two such cuts. Which primal do these originate?

a. Plate b. Chuck c. Round d. Flank

Contestant Name:_____ Contestant Number:_____

_____ 13. As of January 1, 2017, which of the following feed additives are no longer allowed to be mixed into rations without oversight from a veterinarian under the new Veterinary Feed Directive?
a. Chlorotetracycline b. Tylosin c. Lasalocid d. Both A and B

_____ 14. What is the name of the condition in pork when the muscle is pale in color, does not hold its form and is susceptible to high water loss?
a. DFD b. PED c. PSE d. PRRS

_____ 15. Which muscle runs along the spine and is utilized for measurements of ribeye and loin muscle areas?
a. Psoas major b. Longissimus dorsi c. Trapezius d. Biceps femoris

_____ 16. Which of the following is a cool-season perennial which is a host for endophytes that cause reduced gains and pregnancy rates during summer grazing?
a. Orchardgrass b. Tall Fescue c. Alfalfa d. Sorghum-sudan grass

_____ 17. This bacterium is typically vaccinated for prior to sheep entering the "feeding" phase of production and is known for causing bloody diarrhea, hemorrhagic enteritis, and death?
a. Clostridium tetani c. Mannheimia haemolytica
b. Escherichia coli d. Clostridium perfringens

_____ 18. A lamb has the following carcass characteristics: REA = 3.5 in^2, 12^{th} rib fat thickness = 0.36 in, Quality Grade = Choice +. What characteristic would result in the largest discount?
a. Loin muscle area c. Quality Grade
b. 12^{th} rib fat thickness d. Body wall thickness

_____ 19. What is the price at which expenses equal revenue?
a. Breakeven price c. Market price
b. Return above variable costs price d. Price of opportunity costs

_____ 20. Which primal cuts are found in the hindsaddle of the goat carcass?
a. Rack and Loin b. Shoulder and Rack c. Loin and Leg d. Rack and Leg

_____ 21. You have a sample of your alfalfa hay analyzed for % nitrogen. The results indicate that your sample is 2.56% nitrogen. How much crude protein does your alfalfa hay sample contain? Round answer to nearest whole number.
a. 6% CP b. 12% CP c. 16% CP d. 20% CP

_____ 22. You are formulating a grower ration using corn (9% CP) and a concentrate pellet (34% CP). The diet needs to contain 14% CP. What percentage of the ration will be corn?
a. 25% b. 60% c. 80% d. 95%

_____ 23. Your swine operation is looking for opportunities to increase production without increasing herd size. You feel the number of pigs born per sow is less than desired. What breed would you utilize to help correct this trait?
a. Hampshire b. Duroc c. Spot d. Landrace

_____ 24. A cow grazing rapidly growing fescue pasture deficient in magnesium would most likely result in which of the following conditions?
a. White Muscle Disease b. Polio c. Grass Tetany d. Night Blindness

_____ 25. Which of the following conditions is most likely to result from feeding high concentrations of corn to beef steers?
a. Polioencephalomalicia (PEM) c. Hardware Disease
b. Ruminal Acidosis d. Prussic Acid Poisoning