May 2, 2014 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **ANSC 310**

 **Final Exam**

 (108 + 32 = 130 points)

# True / False 1 pt each

T / F 1. In Texas, there is a species of animal called a javalina (or peccary) which looks similar to a pig and is directly related to our domestic breeds of swine.

T / F 2. Feist and McCullough observed that stallions used the “neigh” towards foals what had wandered to another group. The foals returned immediately to their group.

T / F 3. A “snort” is often used as an alarm signal, such as when an intruder enters the group.

T / F 4. The Pryor Mountain harems were territorial - they stayed in a specific area, defended it from other harems and marked its boundary with fecal piles.

T / F 5. The Pryor Mountain harems usually rested around the middle of the day, but at least one member of the harem remained standing and alert.

T / F 6. According to Kilgour, approximately 70 - 80% of mares foal during daylight hours.

T / F 7. Horses are considered a laying-out (or hider) species in regards to whether young foals follow their mother.

T / F 8. In the Prior Mountain horses, dominant horses usually defecated or urinated first, after which other harem members eliminated on the same spot.

T / F 9. Yearling horses (over a year old) were commonly nursed by mares if the mare failed to breed, or had lost her new foal.

T / F 10. A “nicker” is used frequently as a distress call by feral horses.

T / F 11. Most evidence now indicates that the close attachments that a child (or puppy) has for its mother are dependent on food reinforcement because the animal associates the parents with food.

T / F 12. Transferring gilts to their farrowing quarters too close to farrowing (less than one week) may result in stress and poorer maternal behavior.

T / F 13. If you are going to add a few pigs to the litter of a sow that had a small litter of pigs, it is usually best to wait till the recipient litter has firmly established its teat order.

T / F 14. Newly born piglets fight more at two hours after birth than they do 12 hours after birth.

T / F 15. On meeting for the first time, a pig will sniff at the face, along the jaw line and around the eyes and ears of another pig.

T / F 16. Tail docking in pigs always prevents tail biting.

T / F 17. The transportation and mixing of gilts with strangers can be used to stimulate the onset of first estrus in gilts who are reaching puberty.

T / F 18. When large groups of hogs are assembled together in stockyards, the pigs will bed down in groups according to the farms from which they originated.

T / F 19. In studies involving the removal and subsequent return of a pig to an established group, when a dominant pig was removed, the pig needed to be returned much sooner to avoid fighting than when submissive pigs were removed.

Multiple choice (1.5 pt each)

\_\_\_ 1. Among feral horses, the most common occurrence of "teeth-clapping" was: A) submissive mare to a dominant mare; B) submissive male to a dominant mare; C) among yearlings during play; D) immature male to a dominant stallion.

\_\_\_ 2. The typical Pryor Mountain harem group consisted of: A) 1 stallion, 1-3 mares and their offspring; B) 1 stallion, 3-9 mares and their offspring; C) 1 stallion, 10 or more mares and their offspring; D)1-2 stallions, 10 or more mares and their offspring.

\_\_\_ 3. When a harem group of Pryor Mountain horses approached a water hole and there was another harem group already there: A) the dominant stallion of the newly arriving group chased off the group at the water hole, B) the new arrivals usually left and returned later on after the first group left, C) both groups usually drink in peace and reformed their groups after drinking, D) the newly arriving group usually stayed back and waited for the other harem group to finish and leave.

\_\_\_ 4. Generally, Pryor Mountain horses visited water holes how many times a day: A) once every 2 to 3 days, B) once a day; C) twice a day, D) three or more times a day.

\_\_\_ 5. According to Kilgour, the most common aggressive response in horses is: A) biting, B) bumping each other, C) body blocks, D) leg kicks.

\_\_\_ 6. When feral stallions “tended” mares: A) the stallion was attempting to assemble a harem; B) the mares were in or near estrus; C) a rival was in the area; D) mares were about to foal.

\_\_\_ 7. If you stress a cow during the period when you are attempting to artificial inseminate the cow, your chances of getting the cow pregnant are reduced because: A) growth hormone is stimulated; B) the LH peak is suppressed; C) oxytocine is suppressed; D) epinephrine is released.

\_\_\_ 8. A pig producer is using artificial insemination, has no boar on the premises, and wants to detect estrus in her sows. If she uses only pressure on the sow’s back, in what percentage of estrus sows will she see the standing mount response? A) 10%; B) 100%; C) 20%; D) 50%; E) 0%; F) 90 to 98%.

\_\_\_ 9. The same producer in the above question has obtained some boar scent and a tape recording of a boar’s mating call. If she uses these two stimuli, in what percentage of estrus sows will she see the standing mount response? A) 10%; B) 100%; C) 75%; D) 50%; E) 0%; F) 90 to 98%.

\_\_\_ 10. Pigs will eat: A) tubers and seeds; B) earthworms and slugs; C) carrion; D) roots; E) buds and leaves; F) all of the above; G) all of the above except C.

\_\_\_ 11. At 4 weeks and after, the sow terminates nursing by leaving or lying on her stomach; A) 10% of the time; B) 50% of the time; C) 90% of the time; D) good sows never terminate a nursing occurrence.

\_\_\_ 12. Later born piglets (the last to be born) are usually: A) stronger; B) have higher birth weights; C) less stressed by the prenatal respiratory-gas environment; D) all of the above; E) b & c; F) a & b; G) none of the above.

\_\_\_ 13. For approximately the first week of a newborn piglet’s life, the sow initiates nursing about: A) 10% of the time; B) 30% of the time; C) 60% of the time; D) she never initiates nursing.

\_\_\_ 14. Tethering of sows during gestation is not often done because: A) tethering is banned in some European countries so you cannot export the meat; B) tethering is more expensive than using a crate system; C) tethered sows often fight with each other; D) sows initially fight the tethering and the resulting stress may decrease conception rates and the size of their litters.

Short Answer (3 pt each)

1. The article by B.F. Skinner, Skinner discussed the usefulness of a conditioned reinforcer. In the article Skinner suggested using

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Allen Pogue preferred to use

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. B. F. Skinner and Allen Pogue talked about “shaping” in training animals. What is meant by shaping?

3. What was the story behind John Rarey and the stallion Cruiser.

4. Describe John Rarey’s method (most “extreme” method) of taming a horse with vicious habits.

5. What was the presumed role of the fecal piles that were formed by the Pryor Mountain horses?

6. We talked about and demonstrated the “twitch” at the Horse Center.

 1. Describe the twitch:

 2. How is it usually applied to a horse?

 3. What is the hormone that is released that makes it work?

7. List three major differences between the foaling stalls and the stallion stalls/exercise pens at the Horse Center, and explain why the difference is useful.

 \_\_\_\_\_\_Difference\_\_\_\_ \_\_\_\_\_\_\_\_Why Useful\_\_\_\_\_\_\_\_

 1.

 2.

 3.

8. Many professional horse trainers who start intensively training young horses shortly after they are weaned have concerns about their being asked to train young horses that have been extensively “imprint trained”. What are their concerns?

9. In the pig handling article, Temple had a photo showing a method of getting a stubborn pig to back up. How was she getting the pig to back up in a chute?

10. Kilgour listed a number of factors that are associated with overlaying of piglets by the sow. What are three of the factors?

 1.

 2.

 3.

11. The Edinburgh Pig Park study was mentioned in class and in the Text. That was when researchers turned some sows and boars loose in an old military base in Scotland. The researchers designed a housing system for pigs that allowed many of the behaviors observed in the Pig Park. List three behaviors they tried to accommodate in the housing system that was derived from the Pig Park.

1.

2.

3.

12. Your horse has a major cut on its leg. What are some behavioral factors you should consider when deciding whether to keep the horse in a stall in your hospital barn, or return the horse to its usual pasture?

13. You have a friend who has a problem with tail biting in one of her growing/finishing hog pens even though all of her pigs are tail docked. Several pigs have had the stump of their tail eaten off.

1. What would you tell your friend to do to eliminate the problem right away?
2. How would you tell her to prevent the reoccurrence of tail biting in the future? (Hint: Is tail biting the problem or a symptom of the problem?)

14. Describe or show with a diagram how a single-file race entrance should be built in order to prevent pigs from jamming at the junction between the entrance to the race and the crowd pen.

15. What are two factors involved in the occurrence of savaging of pigs by the sow?

 1.

 2.

16. People who own or care for animals are often upset when one of their animals starts performing a stereotypic behavior. Those people often think up ways of preventing that animal from performing those behaviors without changing anything about the animal’s environment or management that may have helped cause the problem behavior. Many applied ethologists do not think it is in the best interests of the animal to simply prevent an animal from performing those “vices”. What is their reasoning for not recommending that people simply prevent an animal from performing vices, once they started?

17. (2 pt) Define “positive punishment” and give an example in horse training.

 Example:

18. (2 pt) Define “negative reinforcement” and give an example in a horse.

 Example:

19. Kilgour reviewed the attempts that have been made to test the ability of horses to learn. The goal was to develop screening tests that could be used to determine which horses were good prospects for advanced training. What was Kilgour’s general conclusion about such efforts?

20. In the text’s chapter on Handling and Welfare, one of the methods the authors discussed was the topic of boredom and its relationship to the normal levels of stress we all have to contend with on a daily basis. Did they consider boredom to be a stress? (Explain)

21. Glucorticoids (cortisol is a glucocorticoid) that are released during stress have two main effects.

 A. The effect that is beneficial to the animal in coping with stress is:

 B. The effect that is not beneficial to the animal is:

22. If a lactating cow or other lactating animal is highly stressed, it’s offspring will most likely not be able to get much milk when nursing.

 What hormone is needed to stimulate “milk letdown”? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What stress related hormone blocks the “milk letdown hormone”? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

23. (2 pts) List two behavioral symptoms of an animal that is undergoing acute psychological stress that were discussed in the Class Notes.

 1.

 2.

 24. (2 pts) List two behavioral symptoms of an animal that is undergoing chronic psychological stress that were discussed in the Class Notes.

 1.

 2.

Comprehensive

32 points

# True / False 1 pt each

T / F 1. Cattle on a high protein diet need less water than cattle on a low protein diet.

T / F 2. During rut, male goats will stay with one group of does, rather than breed the females and move on to the home range of a different group of does.

Multiple Choice (1.5 pts each)

\_\_\_\_ 1. Research has shown that cows need how much contact with their calf shortly after calving to form a specific bond: A) 5 minutes; B) 30 minutes; C) until the calf defecates; D) 4 to 6 hours is average.

\_\_\_\_ 2. Konrad Lorenz used the term “damming up” to label a behavioral phenomena that widely occurs in nature. What was he describing? A) Play behavior; B) Coping mechanism; C) Calving Behavior; D) Feeding mechanism; E) Instinct of border collies to herd sheep.

\_\_\_\_ 3. The behavior that poultry breeders were able to greatly reduce in commercial egg layers is: A. feather pecking; B. broodiness; C. head flicking; D. pecking or eating of other hens' eggs.

\_\_\_\_ 4. The book "The Expressions of the Emotions in Man and Animals" was written by: A) Charles Darwin; B) Lorenz; C) Pavlov; D) Karl von Frisch; E) B. F. Skinner.

\_\_\_\_ 5. L. L. Langstroth discovered the “bee space” by studying the behavior of honey bees. His bee space is the basis for the design of the bee hive you saw at Dr. Friend’s house. Langstroth did this about: A) 1852; B) 1902; C) 1938; D) 1950.

\_\_\_\_ 6. The green or yellow reflection you see when shining a light on an dog is a pretty good indicator they possess: A) fovea; B) green and yellow eyes; C) more cones than rods; D) tapetum.

Short Answer (3 pt each)

1. Some memories get stored into “long term memory” while other memories are only temporary. What are the two main factors that help determine if something gets into long term memory?

 1.

 2.

2. Describe the technique that seems to be the most useful (presently the most widely accepted) in determining if many species of mammals have full color vision.

3. A reporter for the Battalion who is doing a feature article on calf behavior asked you “as long as a calf is placed in a narrow crate or pen while it is very young, will it miss running around as it gets older because it never experienced running?“ Explain your answer.

4. Dairy cattle are often kept indoors or in traditional barns much of the winter. How is confinement behavior in cattle similar to those on pasture?

5. Your aunt, who lives in California, is very concerned about how her eggs are produced. Describe the housing that commercial egg producers in California are adopting for laying hens kept in cages that the producers hope will satisfy the behavior requirements that were specified in California’s Proposition 3.

6. Draw the foot-fall pattern of

an animal who is doing: a lateral walk

 a trot

7. Confinement (such as in a zoo) can be more stressful for some species of animals than others. Lorenz discussed two basic behavioral characteristics of species that are more likely to suffer when in close confinement. What are those characteristics.

 1.

 2.

Not used:

16. Your horse has a major cut on its leg. What are some behavioral factors you should consider when deciding whether to keep the horse in a stall in your hospital barn, or return the horse to its home pasture?

24. According to Kilgour, why do terrified horses sometimes run back into a burning stable?

19. Describe the sleep cycle in horses, as discussed in Kilgour’s book.

18. In the section on Handling and Welfare, Kilgour voiced a strong opinion about “people of misguided good will” who were demanding that sheep be killed out of sight of their flock mates. Why was Kilgour upset about that requirement?

23. Name six different stable vices that can occur in stalled horses.

 1. 2.

 3. 4.

 5. 6.