True/False (1 point each)

T  /  F   1. Like cattle, foals go through a period right after birth when they hide or lay-out by themselves until they are ready to join the band.
T  /  F   2. In the section on Handling & Welfare, Kilgour recommended that when an animal breaks away from a group of livestock you are moving, you should immediately give chase and try to retrieve that animal before it wanders too far.
T  /  F   3. In discussing stunning prior to slaughter of sheep and cattle, Kilgour stressed that the skulls of cattle are much harder than sheep because cattle fight more by backing off and clashing heads.
T  /  F   4. In the section on Handling & Welfare, Kilgour was very satisfied from a humane standpoint with the government regulations that were in effect in Britain and New Zealand regarding the handling and stunning of livestock.
T  /  F   5. Kilgour recommends that when working with horses, do not scare them as it will set off a flight response.
T  /  F   6. Approximately 70% of the breeding attempts and copulations by Pryor Mountain harem stallions occurred during situations of disturbance such as the appearance of another stallion or the horses becoming alert to the presence of the observers.
T  /  F   7. The mare has a stronger attachment to the foal in its first hour of life than the foal has to the mare.
T  /  F   8. Most of the time, feral stallions initiate the movement of the band to water or grazing.
T  /  F   9. Once a horse has become accustomed to cribbing, the cribbing will almost always stop while the horse is in a large pasture.
T  /  F  10. Fecal piles were ignored by Pryor Mountain harem stallions when they were defending their harem from another stallion.
T  /  F  11. When food became scarce, feral horses supplemented their diet by eating old feces.
T  /  F   12. Unlike horses, donkeys usually try to avoid walking into a pond of water and do not splash around when they come to drink.
T  /  F   13. Donkeys will usually “teeth clap” when they are in estrus, but horses do not.
T  /  F   14. It is difficult telling when a member of a group of female donkeys is in estrus because unlike cattle, donkeys do not usually mount each other when in estrus.
T  /  F   15. The Pryor Mountain feral horses were territorial, they set up and defended specific grazing areas that are rather large.
T  /  F   16. A nicker is usually use for communication over long distances between mares and foals.
T  /  F   17. Once a horse has developed cribbing behavior, it can almost always be cured by putting the horse in a large pasture.

Multiple Choice (1.5 pts)

___ 1. According to Kilgour, horses spend about how many hours per day feeding when they are outside in normal pastures?  A) 16; B) 12; C) 8; D) 4 hours.
2. The term “shipping fever” is commonly used in the cattle industry. The term is thought to have originated from: A) cattle who were transported long distances; B) studies on jet-lag during the 1950’s; C) high temperatures that often occurred during transport by ship; D) high rates of illness in horses that were transported from the U.S. to France during WWI.

3. Scaring or stressing a dairy cow just before or while she is being milked will reduce the amount of milk a dairy farmer can get from the cow because of the action stress related hormones have on: A) prolactin; B) growth hormone; C) estrogen; D) oxytocin; E) cortisol

4. Kilgour recommends first trying to socialize dogs when they are: A) within a few hours after birth; B) 2 to 5 days after birth; C) 4 – 6 weeks after birth, D) at weaning.

5. Kilgour recommends first trying to socialize cattle and horses when they are: A) within a few hours after birth; B) 2 to 5 days after birth; C) 4 – 6 weeks after birth, D) at weaning.

6. The release of glucocorticoids during an animal’s response to stress is important because glucocorticoids: A) stimulate gluconeogenesis and the immune system; B) inhibit gluconeogenesis and the immune system; C) inhibit gluconeogenesis while stimulating the immune system; D) stimulate gluconeogenesis and inhibit the immune system.

7. About how many pigs per litter died from overlaying by the sows in the farrowing crates this semester? A) 0; B) .5; C) 2; D) 4.

8. About how many pigs per litter do we expect to die from overlaying by sows farrowing in well-designed farrowing crates? A) 0; B) .5; C) 2; D) 4. (We did already have the test on pigs, but we talked a lot about this the last two weeks in class.)

9. It is believed that the natural function of SAGs in cattle is to A) stimulate cows to ovulate, B) draw the bulls attention to estrus cows, C) strengthen social bonds between cows in the same herd, D) let producers know when to breed their cows.

10. Cows will typically graze about how long per day: a) 4 - 6; b) 7 - 9; c) 12; d) 18, under conditions where they have good pasture.

11. Changing the routine of cows, such as moving one to a new group, A) effects their sleep patterns and production for up to 10 days, B) has an effect on sleep and production, but only for 1 day, C) no effect on their sleep patterns, D) has no effect on production.

12. Dairy cow herds with the highest milk production usually have a herdsperson who is A) self-confident and an extrovert, B) self-confident and an introvert, C) unconfident and an extrovert, D) unconfident and an introvert.

13. Although all bulls are potentially dangerous, the breed that is most associated with injuring people is: A) Holstein; B) Hereford; C) Brahman; D) Jersey.

14. The head position of the bull on the right indicates: A) normal position; B) threat; C) amicable (friendly); D) submissive avoidance.

Short Answer (3 pts each)

1. Indicate which line on the plot is:
   - Agonistic behavior
   - Resting
   - Eating
   - Walking

(You can connect them with lines)
2. What is the “ankus” used for when handling elephants?

What is it comparable to when handling/riding horses?

3. Kilgour discussed at least 10 ways that ranchers can control or modify nutrient or feed intake to cattle. Describe three of these methods:

1.

2.

3.

4. If you have to remove a bull from a herd of bulls for several weeks, what are some things Kilgour recommend trying to help reduce fighting and riding when the bull is returned to the herd?

1.

2.

3.

5. In the movie “Cloud,” the Bureau of Land Management used several tricks or principles of animal handling to get the feral horses safely into the pens during the round up. What were two of them?

1.

2.

6. Your roommate’s mare has recently started rhythmically kicking the back of her stall for long periods of time. What is the easy way of getting the horse to stop repeatedly kicking that was mentioned in class and in the textbook, without turning the horse out into a pasture.

7. Under natural conditions, young bulls usually leave the herd into which they were born when they are about 2 years old. Briefly describe what they do (socially) from the time period starting after they leave their maternal herd until they become mature (about 5 years of age).
8. Describe two features of the fencing used to separate the stallion paddocks at the A&M Horse Center and explain how each relates back to the behavior of stallions.

Feature1:

Feature2:

9. Which type of elephant is most is more docile: African / Asian?

Which type of elephant did Mr. Swain bring to Elephant Walk: African / Asian?

Similar to male goats, male elephants have a period of greatly increased sexual excitement or drive, known as _________________________.

10. Describe teeth clapping in horses and under what condition does it most often occur?

11. (4 pt) Describe an average band of Pryor Mountain feral horses:

That is, what is its social structure called? _______________________.

How many mature stallions? ______
How many mature mares? ______
How many immature horses? ______

12. Why are domesticated stallions’ fecal piles usually near the fence line or entrance to his pen or pasture? (Relate this back to the horse’s wild or feral behavior.)

13. How is the behavior of an animal undergoing acute psychological stress likely to differ from an animal undergoing chronic (long term) stress? (describe the typical behavior for those conditions)

Acute:

Chronic:

14. You are hired to conduct a quick survey of groups of 6 month-old dairy heifers that are being held in small groups in holding pens near highways around the state of Texas. What is the best single behavior that you can use by merely observing the animals from the road to determine if they are being stressed? Also explain your reason.
15. Yesterday Dr. Friend received a call from a person in the Canadian government wanting to know what are the best behavioral signs they can use to determine if horses KLM is transporting to Japan by air in small pens usually containing three horses are stressed or not. (Really! They said they often carry 85 horses in a 747 at a time.) These are older horses going to be slaughtered for consumption by people. What should the government inspectors look for to make sure the horses are ok during the flight:

16. Kilgour described the “ruminant” as an “eat and run” animal. Explain what he meant and how does that tie in to rumination.

17. Cattle and other livestock are often contained by simple fencing. Give three situations that will likely cause cattle to be motivated to leave a pasture in which you would normally expect the animals to remain within.
   1. 
   2. 
   3. 

18. How can behavior vices like pacing or tongue rolling help an animal cope with confinement in a stall?

19. Define “stereotypic behavior”:

20. You are consulting with a petting zoo regarding the containment of their grazing animals. You impress them by saying that there are three main factors that interact to determine the effectiveness of most types of fencing. What are the three we discussed in class?
   1. 
   2. 
   3. 

21. A. What is the major effect of glucocorticoids that helps an animal resist and survive a stress?

   B. What is the major effect of glucocorticoids that works against an animal’s ability to resist and survive a stress?
22. Give three factors that are related to an increased incidence of “bullers” in feedlot cattle.
   1. 
   2. 
   3. 

23. You have a summer job at World Semen Suppliers, LLC. They just bought a 2-year old bull from California for $866,159.99. The bull, however, is not interested in mounting the teasing animal (which is another young bull). Although this is pretty strange for a bull from California, WSS is about to give up on the bull and sell him at a huge loss. But, because you have had ANSC 310 and paid attention during class, you make WSS a deal in which you will attempt to train the bull to service their teasing bulls in return for 15% of what the company would have lost. How are you going to shape the bull’s behavior so that he can be collected off of another bull?

24. Dairy and beef producers often complain that detecting when cows are in estrus is difficult. List three methods that Kilgour described and mentioned in class that are commonly used by farmers.
   1. 
   2. 
   3. 

Comprehensive part (27 pts.)

True/False (1 pt each)

T / F 1. Lorenz thought that birds of prey, in particular the eagle, were very smart birds. His eagle was pretty adaptable and usually found its way home.
T / F 2. Lorenz thought that animal dealers who submitted their customers to serious examination before selling the customer an animal were very commendable.
T / F 3. Lobotomies on humans still allowed the patient to be self-asserting and able to take control of situations.
T / F 4. Animal behavior can be attributed to either genetic factors or environmental influences but rarely, if ever, do both influence behavior.
T / F 5. Oxytocin release in the brain is probably responsible for maternal behavior in sheep.
T / F 6. Rams urinate on themselves during the rut just like bucks.

Multiple Choice (1.5 pt each)

_____ 1. The researcher B. F. Skinner was mostly known for his work with: A) latent learning; B) classical conditioning; C) operant conditioning; D) psychotherapy.
2. Part of the nervous system that controls hunger, satiety, rage, shivering and blood pressure:  
   A) reticular formation; B) cerebellum; C) spinal cord; D) hypothalamus.

3. Part of the nervous system that controls hunger, satiety, rage, shivering and blood pressure:  
   A) reticular formation; B) cerebellum; C) spinal cord; D) hypothalamus.

4. The researcher who is known for “imprinting” is A) Lorenz; B) Skinner; C) Tinbergen; D) von 
   Frisch.

Short Answer (3 pts each)

1. A few weeks ago, Dr. Friend got into a discussion about how large groups (over a thousand 
   individuals) of Dusky dolphins off New Zealand coordinate their movement. How does Lonenz believe 
   the activity of large flocks of birds, herds or packs of animals is coordinated so they act as a group?

2.a(1.5) On the Lion King placemat, what gait is Simba (the lion) preforming? _______.
   Explain:

2.b(1.5) On the Lion King placemat, what gait is the elephant performing? _______.
   Explain:

3. Briefly describe John Rarey’s technique for taming a horse with vicious habits.

4. Traditionally one ram is used to mate 40-50 ewes. Will putting two rams in with a flock of 100 
   ewes give you comparable results to one ram with 50 ewes? Explain what will likely happen.

5. What is the “vomeronasal organ” and where is it located?