ANIMAL/VETERINARY SCIENCE 109
SECOND HOUR EXAM

October 8, 1999
Section Two

Name ____________________
Row _____________________

(61). Briefly explain the energy cycle for muscle contraction including how it is replenished.

- ATP starts out turns into [Glucose()] + ADP
- ADP is replenished by [Glucose()] + ATP
- glucose

(42). I mentioned the prostaglandin PgF2α. What is its use today in livestock?

- It is used to synchronize heifers
- If you give it to you

(83). List four types of Learned Behavior and explain how they differ.

- Condition - learn something by expecting a reward
- Insight - do something w/o really learning, do it right the 1st time like how you nutters use their tools
- Social Learning - learn from watching others
- Imprinting - way young bonds to its mother

(54). Ethology is the study of behavior. Behavior is defined as:

- The way animals react to stimuli
(6.5) Describe the differences between Ecology and Environmental Physiology.

Ecology is the study of what goes on on the inside of the body with hormones. Environmental Physiology is the function of the animals, thing it does.

(6.6) What is the difference between Gross, Comparative, and Micro anatomy.

Gross anatomy is things you can see on an animal without using a microscope.
Comparative is when you use a microscope to view things separate.
Micro anatomy is the cells and tissues of the animal.

(8.7) List eight general functions hormones (endocrine secretions) perform in the animal body.

1. Growth
2. Take care of exocrine systems
3. Receive feedback from endocrine systems
4. Behavior
5. Allow you to reproduce
6. Metabolize minerals
7. Cell differentiation
8. Organs to function

(8.8) Describe the two layers of the skin and their glands and hair follicle. (A drawing might help you)

The 2 layers are the epidermis and dermis. The epidermis, they help the body, protection, give shape, form, regulate temperature, allows us to sweat.
(10)9. What is another name for growth hormone. Describe how it functions within the body to produce growth. Make sure you name the products it produces to cause growth and the products that regulate it's production.

Somatic tropin, it aids in skeletal growth, but some other tissues as it is produced in acidophilic glands, it releases many different hormones that allows you to metabolisshing such as minerals, per. Metabolic rate (thyroxine) if there is too little of thyroxine you can get dwarfism, more fat, if there is too little the animal or human will be cold at higher temperature, weight loss occurs; they always nervous.

(5)10. Explain how bone grows in diameter and length.

Dietary calcium is taken from the inside of the bone is not distributed at the outer side of the bone. Length: At epiphysis is released calcium at the ends of bone.

(6)11. List the parts of the pituitary gland as shown.

1. Pars tuberalis
2. Pars distalis
3. Cleft
4. Pars intermedia
5. Pars nervosa
6. Nervous

(6)12. The first hormone named was secretin. Explain the differences between Endocrine and Exocrine glands.

Endocrine glands release hormones that work within the area that they are released in. Exocrine glands work outside the area that they are released in.
13. Melanin produces skin and hair color. What is the hormone that causes the production of melanin? Where is it produced? What are the two types of melanin and their colors.

- Melanin - stimulating hormone, produced in the pituitary gland
- 1. Eumelanin - dark color
- 2. Phaeomelanin - red or yellow color

14. What are two hormones from the following glands and their functions.
   a) Thyroid - thyroxin, maintains metabolic rate
   b) Adrenal (cortex) - epinephrine - increases blood glucose concentration, norepinephrine - maintains blood pressure
   c) Pancreas - insulin, lowers blood sugar, glucagon, raises blood sugar
   d) Ovary - estrogen, female reproductive growth, causes female to come into heat, relaxes pelvic ligaments during parturition
   e) Adrenal (medulla) - mineral corticoids, regulates balance of potassium, calcium, glucocorticoids, converts proteins to carbohydrates

15. What are the four chambers of the heart and describe the differences between the systemic and pulmonary circulation.

- Right: Left Atrium, Right Ventricle
- In the systemic system the arteries have no oxygen, the veins do.
- In the pulmonary system the arteries have oxygen, the veins don't.