(10) 1. Briefly explain how muscle contracts, where it’s energy comes from and how the energy source is replenished.

Muscle contraction is where the muscle and action transmitted through potassium. There is adenosine triphosphate (ATP) and adenosine diphosphate (ADP) are formed through the muscle which are used to change the muscle. Converting ATP to ADP is what happens in that ATP is released in the muscle.

(4) 2. I mentioned prostaglandin Pgfα. What are two uses in livestock today.

- Induces - swelling of uterus to cause abortion. It is a hormone that is produced gland, breast, and used to promote or induce labor.

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

- The way an animal acts within its environment towards others and towards animals other animals. Behavior is either learned, instinctive or a combination of both. There is when it is learned. Behavior that is instilled.

(8) 4. List and briefly explain four types of behavior.

- Frustration: When an animal learns through imitation.
- Conditioning: When an animal is trained. It is a lack then rewarded.
- Instinct: Hereditary. What animal are born with.
- Reasoning: A reasoning is used to solve problems.
(6.5) Describe the differences between Ecology and Environmental Physiology.

Ecology is the study of how living things relate to their environment and the interactions between them. Environmental Physiology examines how living things respond to changes in the environment that affect their functional viability.

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

Gross anatomy is structural anatomy, the parts of an animal.

Comparative anatomy studies how all animals are made up of.

Micro anatomy studies the microscopic components of an animal.

(9.7) List nine hormones (endocrine secretions) of the pituitary gland.

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

- The Epidermis is the outer layer of skin that forms the main protection from the environment.
- The Dermis is the inner layer of skin that is where chemical changes take place and hairs and汗腺 occur.
(10)9. What is the other name for growth hormone and 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 its production.

(5)10. (This is a bonus question. It does not hurt your grade to not answer it, but could give you up to five points if you answer correctly.) Explain how bone grows in diameter and length.

(6)11. List the parts of the anterior and posterior pituitary gland.

(6)12. The first hormone discovered was found in a aqueous solution of ... Explain the differences between Endocrine and Exocrine glands.
(6)13. Melanin produces skin and hair color. What is the hormone that causes the production of melanin and what are the two types of melanin produced and their colors.

(10)14. What are two hormones from the following glands and their functions.
   a) Thyroid
      Thyroxine
      Calcitonin
c) Hypothalamus
      Oxytocin - Causes smooth muscle contraction
      Vaso pressin - Causes constriction of blood vessels
   b) Hypothalamus
      Oxytocin - Causes smooth muscle contraction
      Vasopressin - Causes constriction of blood vessels
   c) Pancreas
      Insulin - Decreases blood sugar
      Glucagon - Increases blood sugar
   d) Ovary
      Estrogen - Helps growth in female
      Progesterone - The function of hormone
   e) Adrenal (medulla)
      Epinephrine - Regulates pressure in blood vessels
      Norepinephrine

(8)15. What are the four chambers of the heart and describe the differences between the systemic and pulmonary circulation.

   Left Atrium
   Left Ventricle
   Right Atrium
   Right Ventricle

   Systemic circulation is when blood flows from the heart carrying oxygen to the body. Pulmonary circulation is when blood exits the heart then goes to get oxygen from the lungs to deliver it back into the systemic system.