1. The U of I sheep farm is a cooperative effort with WSU. Which breed of sheep was first imported into western US by the U of I suffix. Most of the sheep are located in the states of Texas and Idaho. Sheep are descendants from the Poll Merino and Rambouillet foundation stock. The major breed developed by the Spanish Monks was the Major. The genus for sheep is Ovis and the species is Ovis. Who stole sheep from Spain and took them to his farm Spanish Kings and the breed he developed was the Rambouillet.

2. This is a three-part question. Note it carefully for the number of points.
   A. What are five functions of a protein (5 points)?

   1. Energy
   2. Antibodies
   3. Reproduction
   4. Production
   5. Growth

   B. Draw the chemical structure of a simple dipeptide protein (8 points)
C. Give the digestion process of proteins in humans, include where it starts, enzymes involved and how it is absorbed. (7 points)

The digestion process of proteins starts in the stomach. The stomach releases acid and pepsin, which digests proteins into peptides. Pepsin breaks down proteins into smaller chains. This process continues in the small intestine, where enzymes from the pancreas and the small intestine complete the digestion. Enzymes like trypsin and chymotrypsin further break down proteins into amino acids, which are then absorbed by the body.

(6) 3. The cowherd’s profitability is based on three things: 1. Cow - Calf Production, 2. Feed's, and 3. Feed's. The mathematical formula for profitability or break even pricing becomes:

(10) 4. The genus for cattle is Bos and the two species are Indicus and Taurus. The first species you listed was developed in France and the second was in Spain parts of the world. Two most genetically important reproductive traits in beef cattle are Birth weight and milk production. Three traits of economic importance in the production of cattle are Growth, Carcass, and A.O.C., meaning what.

(5) 5. The major breeds of beef cattle have changed in the US since the 1900’s. Describe how and give three reasons why.

These cattle were only brought over, i.e.: ranchers didn't care about pure breeds back then, they just wanted more cattle; sometimes the cattle through cross breeding them. This has happened because - Can get better traits sometimes.
(5) 6. Define breed?

It is a way to tell animals of a species apart from one another.

(12) 7. Multi part question. Lipids are a very important nutrient. The bonding of fatty acids and glycerol results when water is removed. They combine to form what type of bond?

A. Draw the bond

\[ \text{H} - \text{C} - \text{C} - \text{O} - \text{C} - \text{H} \]

B. The major function of Lipids is

C. What are the essential fatty acids?

- Butyric
- Palmitic
- Arachidonic
- Steric
- Linoleic
- Linolenic
- Essential

D. What are the volatile or free fatty acids?

The fatty acids that are burned up before any other fatty acids.

(10) 8. Vitamins are important to the diet. Tell me what you know about either Vitamin A or Vitamin D. For the ten points, I am looking for sources, functions, deficiencies, and any other general knowledge you might have about the vitamin. Choose only one.

Vitamin A was the first vitamin found, one of its major functions is it allows you to see at night, it can also cause rough coat in animals. Deficiency can be night blindness, xeromathy.

Vitamin D is a major source for this vitamin can be in fish oils.
(5) 9. What are five components of a good herd health program.
   1. Cattle Selection
   2. Record Keeping
   3. Feed Program
   4. Vaccine Program
   5. Vet Health Checks

(14) 10. Define:
   a. Crimp - the wave in the hair fiber
   b. Sebum - bonding eggs, oil from wool
   c. Herbivorous - eats only plants
   d. Hydrolysis - the breaking down of food with water
   e. Flushing - this is when a sheep is not fed very well, then you suddenly move her on to a better diet and she Outstanding more, most sheep ranchers do this at breeding to try to get more lambs.
   f. Proximate analysis
   - this tells how much edible matter is in something.
   g. Pedigree - when you can trace an animal back to its ancestry.

Quiz average = 93
Final average = 87
Total score in class is 700

$435