1. **Please translate the following English text into Chinese**

   The amino acid requirements of farm animals are influenced by many different factors including: (1) population, i.e. weight, daily gain, sex and genotype; (2) environment and (3) health status. However, most changes in amino acid requirements do not lead to changes in the relative proportion of the different amino acids. Therefore, the actual changes can almost exclusively be considered to refer to the amount of balanced protein, or ‘ideal protein’ for the animal. In ideal protein each essential amino acid is equally limiting for performance (i.e. maintenance and production, e.g. growth) in the actual feeding situation, and there is a minimal surplus of N. Consequently, the application of an ideal protein profile in diet formulation is also a valuable tool for minimizing N excretion from farm animal production without any losses in performance. The ideal protein is usually defined as:

   The perfect ratio among the essential amino acids required for maintenance and production.

2. **Please explain the following terms in English**
   a. Dressing percentage
   b. Corned beef
   c. Tumbling
   d. Carcass
   e. Edible poultry by-product

3. **Please translate the following English text into Chinese**

   The eukaryotic cell is generally much larger than the prokaryotic cell and far more complex in term of its structure and functions. The single most distinctive feature of a eukaryotic cell is a membrane-bound nucleus. In addition, eukaryotic cells contain various organelles, specialized structures that perform important functions such as the generation of energy for growth and movement. Between the nucleus and the plasma membrane is the cytoplasm, an aqueous matrix containing various membranous and nonmembranous organelles that perform a variety of complex metabolic functions. Sometimes a cell wall lies just exterior to the plasma membrane. The eukaryotic cells wall is made of cellulose and other molecules, but not peptidoglycan.

4. **Please put in perspective of your goals of graduate study (Please answer in English).**
Analytical procedures

Microbial. All milk samples, except the preprocessed milks, were incubated 1 week at 32 °C before plating to create sufficient growth so that any viable cells or cells from germinating spores present in the milk could be detected. Samples were plated in duplicate with dilutions of $10^0$ and $10^{-1}$ for total aerobic counts on Plate Count Agar (Difco). Duplicate $10^0$ dilutions were plated on anaerobic agar (Difco) and incubated in anaerobic jars for total anaerobic count. All plates were incubated at 37 °C for 48 h and inspected for microbial growth.

6. Please answer the questions either in English or Chinese after reading the following article.

Inhibin is a protein secreted by granulosa (female) and Sertoli (male) cells in response to FSH, and its major action is the negative feedback control of pituitary FSH secretion. It is found in blood plasma, in great quantities in seminal plasma and follicular fluid. Inhibin is a dimeric protein of great complexity. The 'mature' form of inhibin has a molecular weight of 32,000 daltons, and consists of one alpha-chain (approx 18 kDa) and one beta-chain (14 kDa) linked by disulphide bridges. The subunits alone possess no known biological action. As inhibin acts systemically to inhibit FSH release, it follows that a reduction of inhibin secretion would increase FSH concentrations and thus offer potential for increased fertility. Domestic ruminants have been immunized against a variety of inhibin preparations, and small increases in ovulation rate have been reported in cattle, sheep and goats.

a. Inhibin is produced by __________________ in the female animals.

b. What is the feedback action of inhibin?

c. Inhibin with an inhibitory function to FSH must be in a __________ form.

d. How does it work to induce superovulation by inhibin antibody?

e. Either alpha-chain or beta-chain of inhibin could inhibit FSH release. True or False? ________