科目：食品加工　　　　系所組：食品科學系

Answer the following questions

1. What is solid fat index? Please draw a curve to explain the characteristics of shortening and confectionery fat by solid fat index. (10%)

2. Explain how the following methods can affect or improve meat tenderness. Also explain why. (10%)

   a. ageing

   b. cooking

3. Please explain the following terms associated with milk processing. (10%)

   a. one-stage homogenization and two-stage homogenization

   b. processing of instant milk powder

4. How to make a can food? Please list the purpose of each procedure and the equipment which may be used in every canning process, also describe the definition and importance of some sterilization parameters including D value, Z value and F value. (15 %)

5. Please describe the possible technique could be used in manufacturing "breakfast cereal" and "Tetra pak juice", respectively. (10%)

6. Please explain why food shelf life can be extended by using the following process: (1) high pressure processing, (2) drying, (3) freezing. (15%)

7. Why the shelf life of minimally processed vegetables can be extended by employing HACCP system. (10%)

8. Please describe the processing procedures of banana flake and meat flake, respectively. (10%)

9. Please describe the malting process and beer brewing in deatails. (10%)