

科目：食品加工

系所組：食品科學

1. Gossypol is a natural toxin present in cottonseed. Please describe two methods which can be used to remove gossypol from cottonseed oil during processing. (10%)
2. What is the difference between normal milk powder and instant milk powder? Also describe how instant milk powder can be made from raw milk? (10%)
3. What is the difference between protein concentrate and protein isolate? Also describe how protein concentrate and protein isolate can be made from soybean. (10%)
4. Define the modified starch, and list two examples that describe the modified starch applied in food processing. (15%)
5. What kinds of the problems which occurs during the microwave heating, and describe the reasons and how to improve. (15%)
6. Define the following terms and describe their applications in food industry. (24%)
 - (a) "aseptic processing" and "retort pouch"
 - (b) "rotary drying" and "drum drying"
 - (c) "extrusion" and "puffing"
 - (d) "individual quick blanching" and "individual quick freezing"
7. How "evaporation" and "membrane filtration" can be used for orange juice concentrate production? (8%)
8. The quality of frozen food can be evaluated by using several indicators including "high quality life (HQL)", "practical storage life (PSL)", "Quality fraction lost (QFL)" and "Residual quality fraction (RQF)". Try to define all the above indicators. (8%)

※ 注意：1. 考生須在「彌封答案卷」上作答。

2. 本試題紙空白部份可當稿紙使用。

3. 考生於作答時可否使用計算機、法典、字典或其他資料或工具，以簡章之規定為準。