

國立成功大學

113學年度碩士班招生考試試題

編 號：321

系 所：食品安全衛生暨風險管理研究所

科 目：食品科學

日 期：0202

節 次：第 3 節

備 註：不可使用計算機

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. Briefly describe the origin and characteristics of tetrodotoxin from pufferfish. (10%)
2. Briefly describe the food safety issues of *Aspergillus* used in fermented foods. (5%)
3. Explain and compare the similarities and differences in the raw materials, processing methods and characteristics of cheese and butter (10%)
4. Describe in detail the impact and importance of the cold chain system from farm to table from the perspectives of food raw materials, food microorganisms, etc. (10%)
5. Define what alternative proteins are (5%) and describe and compare the advantages and disadvantages of various alternative proteins from the perspectives of food safety, economic cost, food sustainability, etc. (10%)
6. Briefly describe 2 methods to avoid *Clostridium botulinum* and Botulinum toxin in the food. (5%) Please briefly describe 2 functions of NO_2^- in food products. (5%)
7. Describe 4 common types of non-thermal processing. (5%) What is high hydrostatic pressure technology? (5%) Please describe the advantages and limits of high pressure processing with examples, and compare the characteristics of HPP sterilization technology with traditional heating for processed foods. (5%)
8. Explain the difference in the degree of roasting of coffee beans, (5%) and explain the types and principles of the two main food chemical reactions involved in the coffee roasting process, and their impact on the flavor of coffee. (10%)
9. Compare the similarities and differences in the properties of anthocyanins, lycopene, and betalain among the natural red pigments in food, (5%) and list the color preservation methods individually. (5%)