

應試時禁止使用任何計算機。

1. What are the five core messages of “Five Keys to Safer Food” proposed by the World Health Organization (WHO)? What are the food hazards that each core can prevent? (10 分)
2. Please explain the differences between acceptable daily intake (ADI) and tolerable daily intake (TDI) and how to determine them. (10 分)
3. Why can injured bacteria be a threat to food safety? (9 分)
4. Please describe the mechanism of the formation of “acrylamide” in food. (8 分)
5. What are mycotoxins? Please list at least two examples of regulations about mycotoxins in food in Taiwan. (6 分)
6. Due to the pandemic, the online food-delivery platform has been prevalent recently. Please describe what food safety issues may be involved. (7 分)
7. To ensure safe food (quality control procedures), food industries often depend on spot checks of manufacturing conditions and random sampling of final products. This system is more likely reactive than preventative compared to HACCP.
 - (1) Please explain how can prerequisite programs (PRPs such as GMP, GHP, or GAP) and HACCP improve food safety? (8 分)
 - (2) Please explain how CCPs are identified during the establishment of HACCP. (12 分)
8. To manage risks effectively, the food developer or business owners must know the likelihood and severity of each potential threat and then decide how best to manage it.
 - (1) Please define and describe the meanings of the following steps in risk assessment: (a) Hazard Identification; (b) Hazard Characterization; (c) Exposure Assessment; (d) Risk Characterization. (8%)
 - (2) In terms of 3-monochloro-1,2-propanediol (3-MCPD) and Salmonella, respectively, what are the considered processes when doing chemical risk assessment and microbial risk assessment, separately? (12 分)
9. Please explain the following two terms in detail: (1) Biosensor (4 分); (2) Liquid chromatography/mass spectrometry. (6%)

試題隨卷繳回