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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2023/2024

- COURSE NAME : FOOD SAFETY AND QUALITY ASSURANCE
- COURSE CODE : BWD 31502
- PROGRAMME CODE : BWD
- EXAMINATION DATE : JULY 2024
- DURATION : 2 HOURS
- INSTRUCTIONS :
1. ANSWER ALL QUESTIONS
 2. THIS FINAL EXAMINATION IS CONDUCTED VIA
 - Open book
 - Closed book
 3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

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TERBUKA

- Q1** Food safety is an important public health issue, as foodborne illnesses caused by the consumption of contaminated food occur frequently. The World Health Organization (WHO) pointed out in 2007 that this is a major problem worldwide.
- (a) Identify **TWO (2)** essential elements of a robust food safety system in a chicken nugget factory.
(2 marks)
- (b) Use examples to show how your answer in **Q1 (a)** plays a critical role in ensuring the safety of the final product.
(6 marks)
- (c) Explain the systematic approach to develop a food safety system in a chicken nugget factory. Your answer should include a comprehensive analysis of the planning process and its importance in ensuring food safety in the factory.
(12 marks)
- Q2** Golden Piggy Limited (Ltd). is one of the manufacturers of frozen pork meatballs and works according to the ISO 22000 for food safety management. However, despite initial success in implementing food safety systems, the company faces the challenge of fully complying with the requirements of Clause 8. Strategies to overcome these challenges include integrating principles from the Hazard Analysis and Critical Control Points (HACCP) system and the Codex Alimentarius to improve compliance and optimize food safety management systems.
- (a) Distinguish between the HACCP system and the Codex Alimentarius and explain how their integration can be effectively achieved in the production of frozen pork meatball production.
(8 marks)
- (b) Analyze how Golden Piggy Ltd. can address challenges and develop strategies for compliance and improvement by integrating clause 8 of ISO 22000 and the principles of Hazard Analysis and Critical Control Points (HACCP) and Codex Alimentarius.
(12 marks)
- Q3** In Malaysia, Good Manufacturing Practice (GMP) regulations are enforced through various laws and regulations, including the Sale of Drugs Act 1952, the Control of Drugs and Cosmetics Regulations 1984, the Food Act 1983 and the Food Regulations 1985. These regulations set out the specific requirements and standards that manufacturers must adhere to in order to comply with GMP regulations.
- (a) Describe the concept of GMP.
(4 marks)

(b) List the **EIGHT (8)** clauses outlined in the Malaysian Standard of GMP.
(8 marks)

(c) Based on Clause 5 of the Malaysian Standard of GMP requirements, discuss the **TWO (2)** most important points regarding hazard contamination that should be considered to meet the standard.
(8 marks)

Q4 An effective sanitation program can improve food product quality and extend shelf life by reducing microbial contamination. Poor sanitation practices can lead to increase labor costs, product loss, higher packaging costs and lower product value. Conversely, a well-established and carefully maintained hygiene program has the potential to extend the shelf life of food products.

(a) Name **TEN (10)** components that must be considered in allergen control programs as hygiene in food operations in the Good Manufacturing Practice standard.
(10 marks)

(b) Describe how to manage the allergens contamination in a food operational in relation to the plant sanitation establishment.
(10 marks)

Q5 Meet The Meat Trading Sdn Bhd is planning to implement HACCP at their facility. However, they have found that they need other standards and requirements before can implementing HACCP in their establishment. Discuss how the establishment of HACCP needs to be aligned with other requirements to ensure that the regulations are met.
(20 marks)

- END OF QUESTIONS -