

CONFIDENTIAL



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2019/2020**

COURSE NAME : FOOD PRODUCTS DEVELOPMENT
COURSE CODE : BWD 40303
PROGRAMME CODE : BWD
EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020
DURATION : 3 HOURS
INSTRUCTION : ANSWER **ALL** QUESTIONS

TERBUKA

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

CONFIDENTIAL

- Q1** One of the common challenges faced by Muslim travellers is to find Halal food. Therefore, a light, Halal-certified, instant retort pouched foods that can be stored for two years at room temperature is developed to fulfil the travellers' needs.
- (a) There are four main stages involved in developing the aforementioned food product. Show how to perform the first stage of the product development process. (5 marks)
- (b) Analyze **THREE (3)** significant factors and **THREE (3)** essential outcomes during designing the product. (12 marks)
- (c) Identify **FOUR (4)** methods either to convince the customers directly or indirectly to purchase the product. (8 marks)
- Q2** Nowadays, people have less time to cook and enjoy their meals due to work and family commitments. Therefore, the demand for quality tasting healthy packaged food that feels homemade has continuously increased. As a food technologist, you are responsible to develop a new food product in order to meet these criterions.
- (a) Suggest and discuss a suitable type of food product to meet these needs. (9 marks)
- (b) Explain **FOUR (4)** reasons why you recommend the product type as answered in **Q2(a)**. (8 marks)
- (c) Heat-sensitive nutrients will undergo unwanted degradation during processing and storage. Recommend how to retain the nutrients in the food product answered in **Q2(a)**. (8 marks)
- Q3** A group of food technologist from HealthEat Sdn Bhd has assigned to create a new model of formulated instant soybean drink.
- (a) Identify **FOUR (4)** stages in the development of a product model. (4 marks)
- (b) Analyze **FOUR (4)** variables to be considered in **ONE (1)** of the stages answered in **Q3(a)**. (8 marks)
- (c) Sketch and describe a process flowchart for making a new instant soybean drink. (8 marks)

TERBUKA

- (d) Suggest **THREE (3)** studies that can be conducted to evaluate the prototype of the instant soybean drink. (3 marks)
- (e) State **ONE (1)** justification of your answer in **Q3(d)**. (2 marks)

- Q4**
- (a) Production scale-up involves attempts to replicate a bench top process at a successively larger stage to develop expectations of performance during the full-scale production. Describe **TWO (2)** components of scaling up in food production. (10 marks)
 - (b) An organic food manufacturer is developing a high fibre, gluten-free flour mixture made from banana peel. The marketing department has been assigned to conduct a test market for evaluating the reaction of customers, consumers, retailers and the competitors. Design a test market plan for the marketing team to gain reliable and effective response on the new flour mixture. (12 marks)
 - (c) A successful development meets market demands and needs through integration of groups with different abilities, knowledge elements, resources and cultures. Explain **THREE (3)** contributions of integrated communication within an organization towards a successful product development. (3 marks)

– END OF QUESTIONS –

TERBUKA