



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : BAKERY PRODUCT TECHNOLOGY
COURSE CODE : BWD 30403
PROGRAMME CODE : BWD
EXAMINATION DATE : DECEMBER 2018 / JANUARY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

- Q1** (a) Explain **SIX (6)** functions of sugars in baked goods. (6 marks)
- (b) Describe the characteristics of invert sugar. (6 marks)
- (c) Examine the properties of invert sugar make it useful in the following situation.
- (i) Delay the staling of cake. (4 marks)
- (ii) Promotes smoothness in icing. (4 marks)

Q2 The X test in **Figure Q2** provides results that are common specifications used by flour millers and processors to ensure a more consistent process and product.

- (a) Name the X test. (2 marks)
- (b) Determine the X test result:
- (i) P value (2 marks)
- (ii) L value (2marks)
- (iii) P/L ratio• P/L (2 marks)
- (iv) W value (2 marks)
- (c) Summarize the results in **Figure Q2**. (4 marks)
- (d) Why is it important for a baker to know the protein content of different types of flour? (6 marks)

Q3 Bread is a staple food prepared from a dough of flour and water, usually by baking. The dough formation method could create differences in final baked breads. Meanwhile, because of the complexity of bread production, there are number of factors that may be responsible for creating faults in bread.

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- (a) Depending on the method of the dough formation, straight-dough and sponge-dough bread making methods are named. Illustrate the flow chart for the both methods. (8 marks)

- (b) Examine the advantages of the sponge dough method. (4 marks)
- (c) There are few standard parameters judged by professional bakers to define bread quality. Propose solutions for each bread faults listed below
 - (i) Poor volume (2 marks)
 - (ii) Gray crumb (2 marks)
 - (iii) Streaked crumb (2 marks)
 - (iv) Split or burst crust (2 marks)

Q4 A doughnut or donut is a type of fried dough confection or dessert food. The two most common types are cake donut and a yeast-raised donut

- (a) Compare and contrast between cake donut and yeast-raised donut. (10 marks)
- (b) Two yeast doughnut formulas have the same quantities of fat and milk, but one has more sugar than the other. Which one do you expect would require a higher frying temperature? Explain your answer. (5 marks)
- (c) Predict a yeast doughnut texture if the dough is boiled before frying. (5 marks)

Q5 The creaming method, also called the conventional method, was for a long time the standard method for mixing high-fat cakes.

- (a) Define creaming method technique. (2 marks)
- (b) Fat and water (including the water in milk and egg) are major ingredients in high-fat cakes. Properly mixed cake batters produce a water in fat emulsion. However, curdling could occurs when fat can no longer hold the water in emulsion. Suggest how to avoid curdling in cake butter. (8 marks)

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- (c) Explain why is so much stress laid upon the fact that creamed fat and sugar must not be curdled.
(4 marks)
- (d) Atikah planning to bake high-fat fruitcake. Unfortunately, she only found pastry flour in her kitchen. In your opinion, is that possible to bake high-fat fruit cake using pastry flour? Justify your answer.
(6 marks)

– END OF QUESTIONS –

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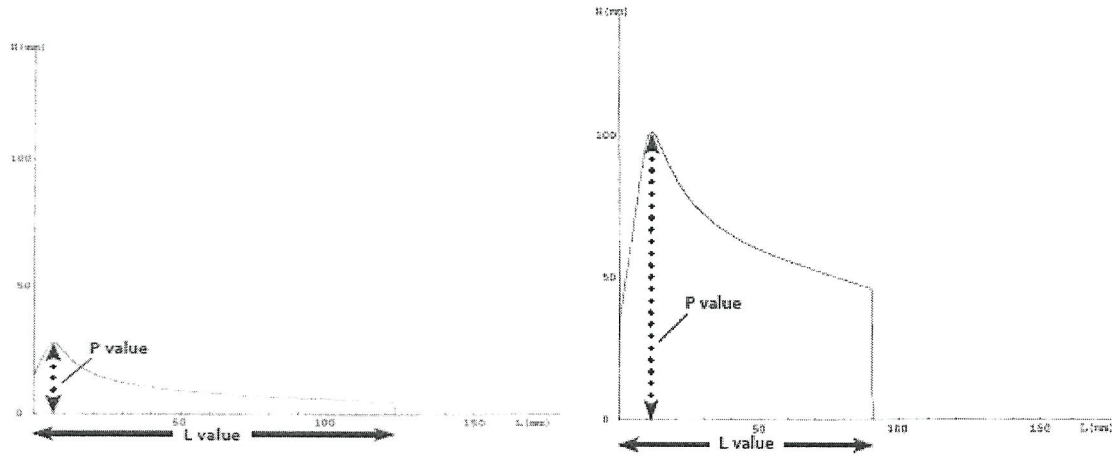
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(a)

(b)

Figure Q2

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