

General Certificate of Education
January 2004
Advanced Subsidiary Level Examination



DESIGN & TECHNOLOGY: FOOD TECHNOLOGY 5541
Unit 1 Materials and Components (FTY1)

Thursday 8 January 2004 Morning Session

In addition to this paper you will require:

- an 8-page answer book (AB08) which is provided separately;
- normal writing and drawing instruments.

Time allowed: 1 hour 30 minutes

Instructions

- Use blue or black ink or ball-point pen. Pencil and coloured pencils should only be used for drawing.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is FTY1.
- Answer Question 1 and any **two** of Questions 2 to 4.

Information

- The maximum mark for this paper is 100 marks.
- 40 marks are allocated to Question 1, 28 to each of Questions 2 to 4, and 4 marks overall for quality of written communication.
- Mark allocations are shown in brackets.
- This paper carries 30 per cent of the total marks for Advanced Subsidiary and 15 per cent for Advanced Level.
- You are reminded of the need for good English and clear presentation. The quality of your written communication will be assessed across all questions.

Advice

- Your answers should be illustrated with sketches and/or diagrams wherever you feel it is appropriate.

SECTION AAnswer Question 1.

1 Study the recipe below for small cakes.

- 150 g caster sugar
- 150 g soft margarine/butter
- 3 medium eggs
- 150 g self raising flour

(a) Explain the functions of each ingredient. *(4×3 marks)*

(b) Explain why the fortification of white flour with the micro-nutrient calcium would benefit consumers. *(6 marks)*

(c) Describe how the flavour and texture could be developed to produce a range of small cakes. *(8 marks)*

(d) Explain the importance of **each** of the following in food production.

- Emulsification
- Shortening
- Gelatinisation

(3×3 marks)

(e) With reference to specific examples, describe the effects of food processing on the vitamin content of food products. *(5 marks)*

SECTION B

Answer any **two** questions from this section.

- 2** (a) Explain why a food manufacturer would use additives to enhance the sensory characteristics of their product range. *(12 marks)*
- (b) Name **four** foods with a high non-starch polysaccharides (NSP) content. *(4 marks)*
- (c) Describe how a food manufacturer could develop a range of sweet and savoury food products high in non-starch polysaccharides. Use examples in your answer. *(12 marks)*
- 3** (a) Explain why a food manufacturer would use standard pre-manufactured components in a product range. *(12 marks)*
- (b) Explain how starch based sauces could improve food products. *(4 marks)*
- (c) Explain the functions of each ingredient in the production of a starch based sauce.
- 25 g flour
 - 25 g fat
 - 250 ml milk
- (3×4 marks)*
- 4** (a) Explain why soya would be a suitable ingredient for a range of food products to be sold in a school canteen. *(10 marks)*
- (b) Suggest examples of food products that make use of soya with pasta. *(12 marks)*
- (c) Describe what happens to pasta during cooking. *(6 marks)*

END OF QUESTIONS