



GCE AS/A level

1111/02



S15-1111-02

DESIGN AND TECHNOLOGY – DT1

Food Technology

A.M. TUESDAY, 2 June 2015

2 hours

ADDITIONAL MATERIALS

In addition to this examination paper, you will need a 12 page answer book.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Answer **five** questions from Section A.
Answer **one** question from Section B.

INFORMATION FOR CANDIDATES

When and where appropriate, answers should be amplified and illustrated with sketches and/or diagrams.

Section A is designed to demonstrate your **breadth** of knowledge in Food Technology.

Your **Section B** answer should be substantial and demonstrate your **depth** of knowledge in Food Technology.

You are reminded that assessment will take into account the quality of written communication used in answers that involve extended writing (**Section B**).

SECTION A

Answer five questions from this section.

*This section is designed to demonstrate your **breadth** of knowledge in Food Technology.*

Each question carries 8 marks.

1. (a) State **one** finishing technique that could be applied to a named food product. [2]

(b) Describe **three** different reasons for using this technique to improve the named food product. 3 × [2]

2. (a) Describe the main features of a high volume (mass) production system in the food industry. [4]

(b) Explain **four** benefits of a high volume (mass) production system to the manufacturer. 4 × [1]

3. Copyright, patents and design rights, are all Intellectual Property Rights granted by the Patent Office.

Describe **two** of these rights in relation to specific food products. 2 × [4]

4. New food materials have been developed which have specific properties and characteristics.

Name **two** such food materials and describe their particular properties, characteristics and use. 2 × [4]

5. Food product designers use information from both primary research and secondary research to inform their designing.

(a) Describe the kind of information identified through **primary research**. [4]

(b) Describe the kind of information identified through **secondary research**. [4]

6. Explain how stable foams and emulsions are formed and used in the manufacture of named food products. [8]
7. (a) Explain the terms **qualitative** and **quantitative** performance criteria when drawing up a design specification for a food product. $2 \times [2]$
- (b) For a named food product specification, state **two** examples of detailed **qualitative** performance criteria and **two** examples of detailed **quantitative** performance criteria. $2 \times [2]$
8. (a) Define the term quality control in the production of food products. [2]
- (b) With reference to the production of a particular food product or material, explain how quality control is carried out and why it is important to the manufacturer. [6]

SECTION B

Answer one question from this section.

*Your answer should be substantial and show the **depth** of your knowledge in Food Technology.*

Each question carries 30 marks.

9. With reference to at least **two** different food products, explain why both **styling** and **image creation** are important to the manufacturer in product development and to the intended target market. [30]
10. Technological developments have had an inevitable impact on the design and manufacture of food products.
Explain how technological developments have improved the manufacture, function, and appeal of named food products. [30]
11. Discuss how manufacturers exploit the properties of sugar to create desirable properties and characteristics in a range of food products. [30]

END OF PAPER