



GCE A Level

1113/02

**DESIGN & TECHNOLOGY
FOOD TECHNOLOGY DT3**

P.M. THURSDAY, 23 June 2011

2 ½ 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 **three** questions from Section A.

Answer **three** questions from Section B.

Answer **two** questions from Section C.

INFORMATION FOR CANDIDATES

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

Section A and **Section B** answers are designed to demonstrate your **breadth** of knowledge in Food Technology.

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

Candidates are reminded of the necessity for good English and orderly presentation in their answers.

SECTION A

Answer **three** questions from this section.

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

Each question carries 8 marks.

1. Describe how *technology-push* can influence the creation of new food products. [8]

2. *Antioxidants, preservatives and emulsifiers* are widely used by food manufacturers to maintain the quality of food products.
Explain the use of **two** of these in named food products. $2 \times [4]$

3. The *Food Safety Act, 1990* and the *General Food Hygiene Regulations, 1995* are important legislation for food manufacturers.
Outline the main features of **one** of these pieces of legislation. [8]

4. Explain **four** important environmental issues that face food technologists when developing new food products or rejuvenating existing food products. $4 \times [2]$

5. Young children and elderly people are both groups of consumers with specific needs.
Describe the most important factors a food technologist would have to consider when designing food products for **one** of these groups. [8]

SECTION B

Answer **three** questions from this section.

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

Each question carries 8 marks.

6. Describe how *disassembly* helps food technologists to improve food products. [8]
7. Identify **three** important aspects of project planning and explain why they need to be in place, and monitored closely, to ensure the successful completion of a food product at school level. [8]
8. Identify the features that influence how the price of a food product is determined. [8]
9. In 2009 the Food Standards Agency launched a campaign to raise awareness of the health risks of eating too much saturated fat.
- (a) Outline the health implications of a diet high in saturated fat. [4]
- (b) Evaluate the impact of substituting saturated fat in food products from the consumers' point of view. [4]
10. Many food products are batch-produced. Evaluate the advantages **and** disadvantages of this system of production. [8]

SECTION C

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

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

Each question carries 26 marks.

- 11.** Discuss the impact that the work of a named chef, restaurateur or food writer of your choice, from the early 70s to the present day, has had on the development of a food product or range of food products. [26]

- 12.** Describe the effects that appropriate material selection has had on the success of a specific food product that you have made in terms of function, performance and aesthetics. [26]

- 13.** Evaluate how cultural and socio-economic trends have impacted on the development of particular named food products. [26]

- 14.** Food Technologists can have a significant positive impact on the future of the planet.
Discuss the ways that the design and manufacture of food products can support and extend the continued existence of a balanced environment. [26]

- 15.** Explain how a rigorous system of evaluating a prototype can lead to incremental developments that can ensure the future success of a manufactured food product. [26]