



GCE AS/A level

1111/02



S16-1111-02

DESIGN AND TECHNOLOGY – DT1

Food Technology

A.M. MONDAY, 23 May 2016

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**).

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

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. Describe and explain how modified starches are used in the development of food products. [8]

2. Food materials such as egg and sugar have different properties.

Explain how the properties of these **two** materials affect the physical and aesthetic characteristics of named food products. 2 x [4]

3. Describe the benefits of high volume production within the food industry. [8]

4. (a) Describe the benefits of using CAD (Computer Aided Design) to the food technologist. [4]

(b) Describe the benefits of using CAM (Computer Aided Manufacture) to the food manufacturer. [4]

5. Minerals are essential for good health.

Select **two** different minerals and for **each** explain:

(a) Why it is essential for good health. 2 x [2]

(b) The effect of a deficiency in the diet. 2 x [2]

6. Disassembly is an important aspect of product analysis in food technology.

Discuss the benefits that a food technologist would get from taking an existing food product apart. [8]

7. (a) Explain, giving examples, what you understand by standardised food components. [4]

(b) State **two** reasons why food manufacturers would use standardised food components. 2 x [2]

8. (a) Describe **one** experiment or test which could be carried out to investigate how food materials behave and interact. [5]

(b) Explain how this investigation could help you in developing a new food product. [3]

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.** Food production lines require sufficient materials and components to be available at the right time and place.

Explain how this can be achieved and discuss the advantages to the food manufacturer. [30]

- 10.** A significant percentage of the UK population ignores the health warnings issued regarding the effects of poor diet.

Discuss, giving clear examples, how food manufacturers have designed their food products to encourage consumers to make healthier choices. [30]

- 11.** Understanding and applying food safety practices is vital to the food manufacturer.

Discuss how food manufacturers and food handlers apply safe working practices at all stages of production. [30]

END OF PAPER