

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCE

Design and Technology

Food Technology

Advanced Subsidiary

Unit 2: Design and Technology in Practice

Tuesday 14 May 2013 – Morning

Time: 1 hour 30 minutes

Paper Reference

6FT02/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- If pencil is used for diagrams/sketches it must be dark (HB or B). Coloured pens, pencils and highlighter pens must not be used.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 70.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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PEARSON

Answer ALL the questions. Write your answers in the spaces provided.

1 (a) Name **three** methods of size reduction commonly used in the food industry. (3)

1

2

3

(b) (i) Outline **one** reason why uniformity of food particle size is important in the canning process. (2)

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(ii) Outline **one** reason why uniformity of food particle size is important when mixing powdered ingredients. (2)

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(c) Describe **two** reasons why the use of emulsifiers may be necessary when mixing liquids. (4)

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(Total for Question 1 = 11 marks)



2 (a) Identify any **five** stages of a HACCP plan.

(5)

1

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2

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3

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4

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5

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(b) (i) Outline the importance of traceability as part of a quality assurance system in the food industry.

(2)

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(ii) Describe how The Food Safety Act 1990 is enforced in the food industry.

(2)

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(Total for Question 2 = 9 marks)



3 (a) Outline **two** of the four stages in the bacterial life cycle.

(4)

1

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2

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(b) Describe how the following **three** factors may influence the growth of bacteria:

(i) temperature

(2)

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(ii) moisture

(2)

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(iii) pH

(2)

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(Total for Question 3 = 10 marks)



4 (a) Complete the following table by providing **two** examples for each named carbohydrate.

(4)

| Carbohydrate | Example |
|--------------------------------|----------------|
| Simple Polysaccharides | 1 |
| | 2 |
| Complex polysaccharides | 1 |
| | 2 |

(b) Describe the process of gelatinisation of starch.

(6)

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(Total for Question 4 = 10 marks)



5 (a) Give **two** characteristics of an unsaturated fatty acid.

(2)

1

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2

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(b) Describe the process of the hydrogenation of oils.

(4)

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(c) Discuss how fats become rancid.

(6)

(Total for Question 5 = 12 marks)



6 (a) Name **two** methods of preservation by heat.

(2)

1

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2

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*(b) Describe the effects of Accelerated Freeze Drying (AFD) on food products.

(6)

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(Total for Question 6 = 8 marks)



7 (a) Evaluate the use of glass as a packaging material for food products.

(4)

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* (b) Discuss how computer aided manufacture (CAM) is used effectively in the food industry.

(6)

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(Total for Question 7 = 10 marks)

TOTAL FOR PAPER = 70 MARKS





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