

Write your name here	
Surname	Other names
Centre Number	Candidate Number
<b>Edexcel GCE</b>	
<b>Design and Technology</b>	
<b>Food Technology</b>	
<b>Advanced Subsidiary</b>	
<b>Unit 2: Design and Technology in Practice</b>	
Friday 28 May 2010 – Morning <b>Time: 1 hour 30 minutes</b>	Paper Reference <b>6FT02/01</b>
<b>You do not need any other materials.</b>	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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**Answer ALL the questions. Write your answers in the spaces provided.**

**1** (a) Name **two** industrial methods used for peeling raw food materials. (2)

1 .....

2 .....

(b) Give **two** reasons why size reduction of food materials is used in industry. (2)

1 .....

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2 .....

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(c) Outline the process of homogenisation of milk. (4)

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**(Total for Question 1 = 8 marks)**



2 (a) Name **two** groups of pigments that are naturally present in some foods.

(2)

1 .....

2 .....

(b) Give **two** problems associated with the use of natural pigments.

(2)

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(c) Discuss the use of monosodium glutamate (MSG).

(4)

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**(Total for Question 2 = 8 marks)**



**3** (a) Name the **two** types of rancidity to which fats are susceptible.

(2)

1 .....

2 .....

(b) Outline, using notes and/or sketches, the structure of a mixed triglyceride.

(3)

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(c) Outline the process of hydrogenation of oils.

(3)

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**(Total for Question 3 = 8 marks)**



4 (a) Name **two** groups of micro-organisms which are of importance in food technology.

(2)

1 .....

2 .....

(b) Explain **three** of the four stages in the bacterial life cycle.

(6)

1 .....

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2 .....

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3 .....

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(c) Workers in the food industry must follow personal hygiene rules to help prevent food poisoning.

Discuss **four** of these rules.

(4)

1 .....

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2 .....

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3 .....

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4 .....

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(Total for Question 4 = 12 marks)



**\*5** (a) Hazard Analysis and Critical Control Points (HACCP) is an essential component of quality assurance procedures.

Discuss **two** basic HACCP requirements in the food industry.

(4)

1 .....

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2 .....

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(b) An important aspect of Good Manufacturing Practice (GMP) is effective quality control.

Explain the requirements of effective quality control.

(4)

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**(Total for Question 5 = 8 marks)**



\*6 (a) Assess the use of low density polythene (plastic) as a food packaging material.

(3)

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(b) Discuss the principles of chilled storage.

(3)

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(c) Explain the effects Ultra Heat Treatment (UHT) has on commercially produced food products.

(6)

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**(Total for Question 6 = 12 marks)**



7 (a) Describe how hydrogen bonding plays an important role in the gelatinisation of starch.

(3)

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(b) Explain why stabilised modified starch is used in the production of some frozen food products.

(3)

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