Write your name here

Surname	Other names

Edexcel GCE

Centre Number	Candidate Number

Design and Technology

Food Technology
Advanced
Unit 3: Food Products, Nutrition and Product Development

Friday 25 June 2010 – Morning **Time: 2 hours**	Paper Reference **6FT03/01**

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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1/1/1/1/1/1

H 3 5 0 5 7 A 0 1 1 2

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

1 (a) Name **two** proteins found in animal muscle.

(2)

1 .....

2 .....

(b) Outline what happens when muscles contract.

(3)

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(c) Explain how muscle converts to meat.

(3)

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(Total for Question 1 = 8 marks)

2 (a) Name **two** enzymes found in the stomach.

(2)

1 .....

2 .....

(b) Explain the role of bile in the digestion process.

(2)

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(c) Name **two** enzymes and the substances which they break down during digestion in the small intestine.

(2)

(i) Enzyme 1

.....

Substance

.....

(2)

(ii) Enzyme 2

.....

Substance

.....

(Total for Question 2 = 8 marks)

3 (a) Give **four** changes which occur in fruit during the ripening process.

(4)

1 .....

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2 .....

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3 .....

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4 .....

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(b) Discuss the conditions which affect fruit during long-term storage.

(6)

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(Total for Question 3 = 10 marks)

4 (a) Explain, with the aid of **one** example, how biotechnology may influence the development of new food products.

(4)

(b) Evaluate the roles of genetic modification in primary food production.

(6)

(Total for Question 4 = 10 marks)

5 (a) State what is meant by

(i) reference nutrient intake (RNI)

(2)

(ii) guideline daily amounts (GDAs).

(2)

(b) Name **three** vitamins and discuss their function in the body.

(6)

Vitamin 1 .....

Function .....

Vitamin 2 .....

Function .....

Vitamin 3 .....

Function .....

(Total for Question 5 = 10 marks)

***6** (a) Name the **three** main proteins found in milk.

(3)

1 ....

2 ....

3 ....

(b) Describe the cheese production process.

(9)

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(Total for Question 6 = 12 marks)

***7** Describe the processes and chemical changes which occur when wheat flour is made into bread.

(12)

(Total for Question 7 = 12 marks)

TOTAL FOR PAPER = 70 MARKS

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