Write your name here

Surname		Other names

**Pearson
Edexcel GCE**

Centre Number | | | | | | Candidate Number | | | | | |

Design and Technology

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

Tuesday 3 June 2014 – 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

P 4 3 3 7 1 A 0 1 1 6

PEARSON

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

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

(2)

1 ....

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2 ....

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(b) Outline the changes which occur in fish after death.

(6)

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(Total for Question 1 = 8 marks)

2 (a) Different enzymes are important in the breakdown of nutrients in the digestive system.

Name an enzyme that is important in the breakdown of:

(i) fat

(1)

....

(ii) protein

(1)

....

(iii) carbohydrate

(1)

....

(b) During digestion, nutrients are broken down into various components to enable absorption.

Identify the final components for each of the following nutrients.

(i) fat

(1)

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(ii) protein

(1)

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(iii) carbohydrate

(1)

....

(c) Outline the role of bile in the digestion of fat.

(2)

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(Total for Question 2 = 8 marks)

3 (a) Compare the changes that occur during the storage of climacteric and non-climacteric fruits.

(4)

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(b) Explain the ripening process in fruit.

(6)

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(Total for question 3 = 10 marks)

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4 (a) There are many factors that influence and encourage new food product development.

Outline how cultural changes impact on new food product development.

(4)

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(b) (i) Name **two** stages in a product life cycle.

(2)

1 ....

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2 ....

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(ii) Describe the marketing plans that are implemented at these two product life cycle stages.

(4)

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(Total for question 4 = 10 marks)

5 (a) (i) Give **two** functions of iron in the diet.

(2)

1 ....

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2 ....

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(ii) State **one** good food source of haem iron.

(1)

....

(iii) State **one** good food source of non-haem iron.

(1)

....

(b) Discuss the role of dietary fibre (Non-Starch Polysaccharide) in the diet.

(6)

(Total for question 5 = 10 marks)

6 (a) State **two** ways in which the body uses energy.

(2)

1 ....

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2 ....

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(b) Explain the concept of negative energy balance.

(2)

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(c) Explain why the issue of obesity is a major focus for health professionals in the UK.

(4)

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*(d) Discuss the use of one new food material in the development of food products targeted at those who wish to go on a reduced calorie diet.

(4)

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(Total for question 6 = 12 marks)

7 (a) State the **three** main parts of a cereal grain.

(3)

1 ....

2 ....

3 ....

*(b) Evaluate the different types of wheat used in the making of bread, biscuits and pasta.

(9)

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(Total for Question 7 = 12 marks)

TOTAL FOR PAPER = 70 MARKS

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