

Write your name here

Surname

Other names

Pearson
Edexcel GCE

Centre Number

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Candidate Number

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Design and Technology

Food Technology

Advanced

Unit 3: Food Products, Nutrition and Product Development

Monday 8 June 2015 – 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.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

P44900A

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PEARSON

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

1 The contribution of nutrients to the workings of the human body is essential for good health.

For each of the given bodily processes, name the micro-nutrient required and give **one** good source of this micro-nutrient.

(a) Absorption of iron.

(2)

Name

Source

(b) Release of energy from carbohydrate foods.

(2)

Name

Source

(c) Production of the thyroid hormones: thyroxine and tri-iodothyronine.

(2)

Name

Source

(d) Synthesis of proteins required for normal blood clotting and bone structure.

(2)

Name

Source

(Total for Question 1 = 8 marks)



2 Describe the changes that occur during the following stages of the yeast bread making process.

(a) Mixing of ingredients

(2)

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(b) Kneading

(2)

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(c) Proving

(2)

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(d) Baking

(2)

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(Total for Question 2 = 8 marks)



3 (a) Name **two** natural sources of sugar (sucrose).

(2)

1

2

(b) Outline the sugar refining process.

(4)

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(c) Jam is a preserve.

Explain the requirements for successful jam making.

(4)

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(Total for Question 3 = 10 marks)



4 (a) Describe the impact that business confidence can have on food product development.

(4)

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(Total for Question 4 = 12 marks)



5 All foods deteriorate over time.

Describe the chemical changes that occur during the following processes.

(a) Spoilage of meat

(4)

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(b) Souring of milk

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(c) Spoilage of fruit

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(Total for Question 5 = 12 marks)



*6 (a) (i) Define the term **ovo vegetarian**.

(1)

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(ii) Define the term **lacto-ovo vegetarian**.

(1)

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***(b) Discuss the provision of the following nutrients in a vegan diet.**

(8)

(i) Protein

(ii) Vitamin D

(Total for Question 6 = 10 marks)



*7 Discuss how encapsulation technology has contributed to new food product development.

(10)

Dotted lines for writing.



Handwriting practice area with 25 horizontal dotted lines.

(Total for Question 7 = 10 marks)

TOTAL FOR PAPER = 70 MARKS

