

Please check the examination details below before entering your candidate information

Candidate surname					Other names									
Pearson Edexcel GCE					Centre Number					Candidate Number				
Friday 7 June 2019														
Morning (Time: 2 hours)										Paper Reference 6FT03/01				
Design and Technology Food Technology Advanced Unit 3: Food Products, Nutrition and Product Development														
You do not need any other materials.												Total Marks		

Instructions

- Use **black** ink or ball-point pen.
- **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 with your spelling, punctuation and grammar, as well as the clarity of expression, on these questions.*

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 ►

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

1 Micro-nutrients are important for good health.

Name the micro-nutrient required for each of the following bodily processes.

Identify **one** good food source for each.

- (a) Regulating calcium and phosphorus metabolism to build and maintain healthy bone. (2)

Micro-nutrient

Food source

- (b) Release of energy from carbohydrate foods. (2)

Micro-nutrient

Food source

- (c) Formation of healthy red blood cells. (2)

Micro-nutrient

Food source

- (d) Regulating body water content. (2)

Micro-nutrient

Food source

(Total for Question 1 = 8 marks)



2 (a) State **two** processing methods used to destroy pathogens in milk.

(2)

1

2

(b) Outline the main stages in the butter making process.

(4)

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(c) Describe the impact of the Chorleywood Bread Making Process on bread production.

(4)

(Total for Question 2 = 10 marks)



3 New technologies and product development continue to innovate food products.

(a) Identify **one** food product that uses encapsulated ingredients or components.

(1)

(b) Explain the principles behind encapsulation technology.

(5)



(c) Discuss the use of novel proteins / meat analogues in vegetarian products.

(6)

(Total for Question 3 = 12 marks)



4 (a) Describe how the following **two** techniques delay ripening of fruit and vegetables during storage:

(i) atmospheric pressure

(2)

(ii) controlled atmosphere.

(6)



*(b) Explain how chill injury influences the quality of fruit.

(4)

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(Total for Question 4 = 12 marks)



5 (a) Explain the changes that occur in fish and milk during spoilage.

(i) Fish

(4)

(ii) Milk

(4)



(b) Discuss the desirable changes that occur when moulds are added to cheese during production.

(4)

(Total for Question 5 = 12 marks)



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***6** Evaluate the implications of purchasing locally produced foods.

(6)

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(Total for Question 6 = 6 marks)



*7 Fruit and vegetables are a good source of vitamins and minerals.

Justify a range of **other** nutritional concepts behind the 'Five a Day' campaign.

(10)

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(Total for Question 7 = 10 marks)

TOTAL FOR PAPER = 70 MARKS



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