

Write your name here

Surname

Other names

Pearson
Edexcel GCSE

Centre Number

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Candidate Number

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Design and Technology:
Food Technology
Unit 2: Knowledge and Understanding
of Food Technology

Monday 5 June 2017 – Afternoon
Time: 1 hour 30 minutes

Paper Reference

5FT02/01

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 80.
- 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 ►

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Answer ALL questions.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Select the correct health and safety procedure to carry out prior to cooking.

- A** wipe down work surfaces
- B** wash hands in hot soapy water
- C** remove jewellery
- D** all the above

(Total for Question 1 = 1 mark)

2 75% of the body is made of water. Water is needed for:

- A** hydration
- B** lubrication
- C** digestion
- D** all the above

(Total for Question 2 = 1 mark)

3 The term DRV refers to:

- A** Daily Required Vitamins
- B** Diners Require Value
- C** Dietary Reference Values
- D** Dining Room Values

(Total for Question 3 = 1 mark)

4 Fluoride is needed for:

- A** the functioning of nerves
- B** strengthening teeth
- C** production of energy
- D** improved night vision

(Total for Question 4 = 1 mark)

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5 Milk is a highly nutritious food containing:

- A vitamin C
- B fibre
- C protein
- D iron

(Total for Question 5 = 1 mark)

6 Unleavened bread does not contain:

- A yeast
- B gluten
- C flavourings
- D flour

(Total for Question 6 = 1 mark)

7 The fermentation process is used in the production of:

- A bread and beer
- B juice and soup
- C oil and margarine
- D porridge and milkshakes

(Total for Question 7 = 1 mark)

8 Hydrogenation is the process of:

- A turning water to ice
- B colouring sugar brown
- C setting protein
- D hardening oil

(Total for Question 8 = 1 mark)



9 Rickets is:

- A a bone disorder linked to low calcium and vitamin D intake
- B associated with brittle hair and nails
- C a skin disease
- D weight loss and fatigue

(Total for Question 9 = 1 mark)

10 The coagulation process will occur in the presence of:

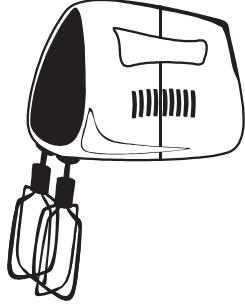
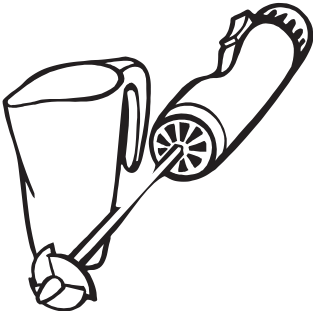
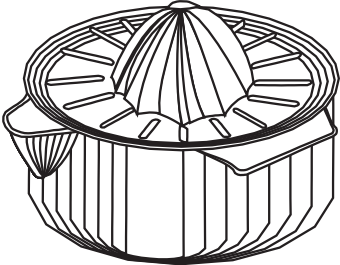

- A heat
- B water
- C carbon dioxide
- D nitrogen

(Total for Question 10 = 1 mark)



11 (a) The table below shows some tools and equipment.

Complete the table below by giving the missing names and uses.

Tool/Equipment	Name	Use
	(1)	To aerate mixture
	(1)	To mix and puree foods
	Citrus juicer	(1)
	Griddle pan	(1)

(b) Milk is a highly nutritious, useful and valuable food.

(i) State **one** animal that produces milk.

(1)

(ii) Name **one** milk originating from a plant.

(1)

(c) Describe **one** difference in nutritional content between whole milk and skimmed milk.

(2)

(d) State **three** rules to follow when storing fresh milk.

(3)

- 1
- 2
- 3

Pasteurisation is a method of heat treatment used to extend the shelf life of milk.

(e) (i) Name **one** other heat treatment method used to extend the shelf life of milk.

(1)

(ii) Explain your answer.

(2)



(f) The following ingredients could be used to make breakfast:

- 2 eggs
- 2 rashers of bacon
- 1 sausage
- 2 pieces of bread
- 3 mushrooms
- 1 tomato
- 1 orange
- 1 tea bag
- 50ml milk.

Describe **two** recipe modifications that could make this breakfast more suitable for someone trying to reduce their risk of obesity.

(4)

1

2

(Total for Question 11 = 18 marks)



12 A supermarket wishes to extend its ready to eat range of savoury vegetarian meals to include world cuisine.

Design specification

The specification for the savoury vegetarian meal is that it must:

- contain a novel protein food/meat analogue
- be identified from a named country of origin
- be high in carbohydrate
- be low in saturated fat
- be able to be reheated easily
- contain one named method for making sauce
- be a single portion
- contain one named technological development.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the savoury vegetarian meal product that meet the specification points above.

Candidates are reminded that if a pencil is used for diagrams/sketches it must be dark (HB or B).

Coloured pens, pencils and highlighter pens must **not** be used.

PLEASE DO NOT WRITE OR DRAW IN THIS SPACE.

PLEASE USE THE SPACES OPPOSITE FOR YOUR DESIGNS.



Design idea 1

(8)

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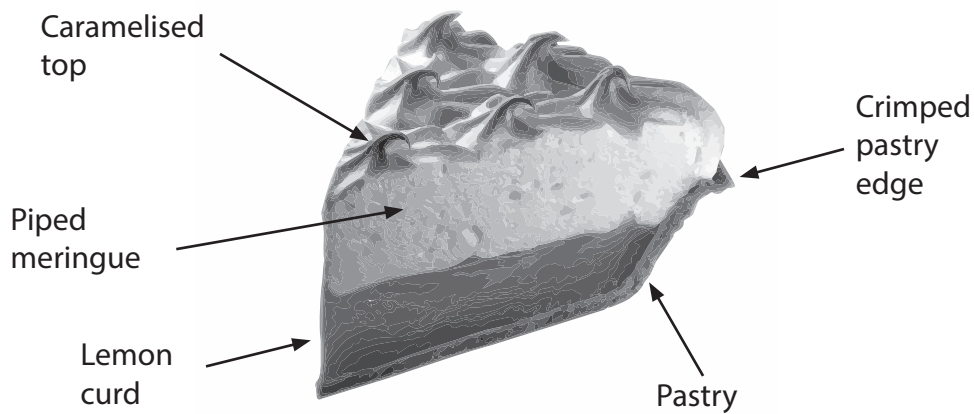
Design idea 2

(8)

(Total for Question 12 = 16 marks)



13 The image below shows a lemon meringue pie.



(a) State the type of pastry used to make the lemon meringue pie. (1)

.....

(b) Describe **one** process that could be used to prevent a soggy pastry case. (2)

.....

(c) Explain how eggs have been used to create **two** components in the lemon meringue pie.
Component 1 (2)

.....

Component 2 (2)

.....

.....



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(d) Give **two** advantages of using one-off production for making the lemon meringue pie.

(2)

Advantage 1

Advantage 2

(e) Explain why the lemon meringue pie is successful in meeting the following specification points.

(i) The product is to be manufactured for the luxury market.

(2)

(ii) The product should be morally/ethically acceptable to consumers.

(2)



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*(f) Evaluate supermarket shopping compared to internet shopping when seeking good quality, economical food.

(6)

Area with horizontal dotted lines for writing the answer.

(Total for Question 13 = 19 marks)

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14 (a) Name **two** nutrients that supply energy for use by the body.

(2)

1

2

(b) Name the vitamin that enables energy to be utilised by the body.

(1)

.....

(c) Describe **three** different factors that affect the body's need for energy.

(6)

1

.....

.....

2

.....

.....

3

.....

.....

(d) Consumers need to know the nutritional content of food products so that they can make an informed choice.

Describe the nutritional information found on food labels.

(2)

.....

.....

.....

.....



***(e)** Discuss the characteristics of industrial machinery and equipment used in the mass production of food products to ensure food is fit for purpose and safe to eat.

(6)

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(Total for Question 14 = 17 marks)

TOTAL FOR PAPER = 80 MARKS



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