

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

Tuesday 3 June 2014 – 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.
- 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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Answer ALL the questions.

For each question 1 to 10, choose an answer A, B, C or D. Put a cross in the box indicating the answer you have chosen ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 The 'Eatwell plate' encourages us to:

- A** drink plenty of water
- B** eat lots of fruit and vegetables
- C** eat more fish
- D** all of the above

(Total for Question 1 = 1 mark)

2 Foods classified as cereals would be:

- A** milk, cheese, cream and yogurt
- B** fish, meat and dairy foods
- C** wheat, oats and maize
- D** fruit and vegetables

(Total for Question 2 = 1 mark)

3 Good sources of HBV (High Biological Value) protein are:

- A** herbs and spices
- B** fish, meat and dairy foods
- C** rice, corn and cous cous
- D** apples, pears and bananas

(Total for Question 3 = 1 mark)

4 Sources of fat originating from animals are:

- A** suet, lard and olive oil
- B** butter and corn oil
- C** sunflower oil and low fat spreads
- D** lard, suet and butter

(Total for Question 4 = 1 mark)



5 The process used to harden plant oil is called:

- A homogenisation
- B hydrogenation
- C condensation
- D evaporation

(Total for Question 5 = 1 mark)

6 Halal meat is associated with which culture?

- A Islam
- B Christianity
- C Hinduism
- D Sikhism

(Total for Question 6 = 1 mark)

7 Foods may be shaped and formed during food processing. Which food has been processed in this way?

- A Syrup
- B Oil
- C Pasta
- D Jam

(Total for Question 7 = 1 mark)

8 What is HACCP?

- A A food preparation technique
- B A method of cooking
- C An industrial preservation method
- D A system used for identifying potential hazards in food production

(Total for Question 8 = 1 mark)



9 Food is fortified to improve and enhance its nutritional content. Which food has been fortified by law?

- A Sugar
- B Eggs
- C Rice
- D White flour

(Total for Question 9 = 1 mark)

10 Which one of the following is a tropical fruit?

- A Banana
- B Apple
- C Lemon
- D Grape

(Total for Question 10 = 1 mark)


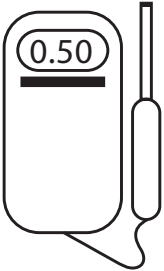




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11 (a) The table below shows some tools and equipment.

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

Tools/Equipment	Name	Use
	(1)	Measuring dry/wet ingredients
	Industrial/commercial food probe	(1)
	(1)	Frying/stir frying ingredients
	(1)	Flattening/rolling



(b) Meat is a highly perishable food product.

Give **three** rules to follow when storing fresh meat.

(3)

1

2

3

(c) Processing techniques are used to create secondary food products.

Name **two** processing techniques used to shape and form meat.

(2)

Technique 1

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Technique 2

.....

(d) Radiation is a method of heat transference used in cooking.

(i) Give **two** other methods of heat transference.

(2)

Method 1

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Method 2

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(ii) Name **two** moist methods of cooking.

(2)

Method 1

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Method 2

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(iii) Explain **one** safety rule that must be followed when using a microwave oven.

(2)

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(iv) Describe **one** change that happens to meat during cooking.

(2)

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(e) The following recipe was used to produce a prototype meat pastry:

- 100g plain flour
- 25g lard
- 25g butter
- 50g cubed steak
- 1 onion
- 100ml meat stock
- 1 potato
- seasoning
- milk or egg for sealing and glazing

Describe **two** modifications that would make the meat pastry suitable for someone following a vegan diet.

(4)

1

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2

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(Total for Question 11 = 21 marks)



12 A manufacturer is developing a new range of savoury salads, suitable to be sold in a garden centre cafe.

The specification for the savoury salad products is that they must:

- include one named starchy carbohydrate product
- include a good source of protein
- contain a suitable sauce
- contain one portion as part of the 'five a day' recommendation
- be a single portion
- include a sensory quality linked to texture
- be suitable for batch production
- be sustainable.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the savoury salad products 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)

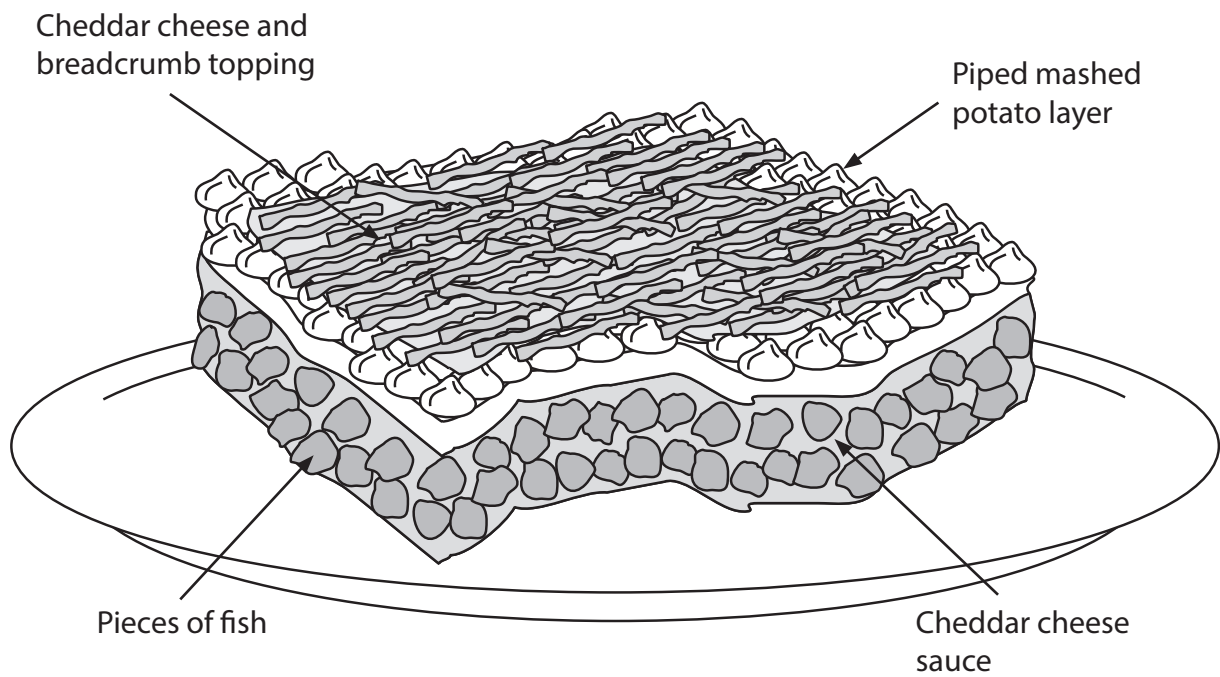
Design idea 2

(8)

(Total for Question 12 = 16 marks)



13 The drawing below shows a fish pie product, sold in the chilled section of a supermarket.



(a) The fish pie contains different component layers to add a range of flavours to the product.

Give **one** other property of the cheddar cheese sauce layer that makes it suitable for the fish pie.

(1)



(b) Explain **one** reason for sampling during the manufacture of the fish pie.

(2)

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(c) Give **one** reason why piping is used as a finishing technique for the fish pie.

(1)

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(d) Explain **one** nutritional benefit of eating more fish.

(2)

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(e) Explain why the fish pie successfully meets the following specification points:

(i) suitable for batch production

(2)

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(ii) suitable for a wide range of people.

(2)

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*(f) A food manufacturer uses sensory testing to check the quality of products.

Below are two sensory tests.

Sensory Test A: Ranking Test	Sensory Test B: Rating Test												
<p>Key: 5 = excellent 4 = good 3 = average 2 = fair 1 = poor</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th style="width: 50%;">Food Product: Fish Pies</th> <th style="width: 50%;">Rank order</th> </tr> </thead> <tbody> <tr> <td>Pie 792</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Pie 186</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Pie 429</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Pie 035</td> <td style="text-align: center;">5</td> </tr> <tr> <td>Pie 851</td> <td style="text-align: center;">1</td> </tr> </tbody> </table>	Food Product: Fish Pies	Rank order	Pie 792	4	Pie 186	2	Pie 429	3	Pie 035	5	Pie 851	1	<p>Key: 5 = excellent 4 = good 3 = average 2 = fair 1 = poor</p> <p style="text-align: center; margin-top: 20px;">Star Profile: Fish Pies</p> <p style="text-align: center; margin-top: 20px;"> Pie 792 Pie 186 Pie 429 Pie 035 Pie 851 </p>
Food Product: Fish Pies	Rank order												
Pie 792	4												
Pie 186	2												
Pie 429	3												
Pie 035	5												
Pie 851	1												



14 Food preparation is the method of preparing ingredients into food.

(a) Describe **two** cleaning processes used in the food industry as part of food preparation.

(4)

Process 1

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Process 2

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(b) Explain **one** use of blanching during food preparation.

(2)

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(c) Name **one** suitable food that could be blanched during food preparation.

(1)

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(d) Describe **two** principles of food preservation.

(4)

1

2



(e) Technological developments used within the food industry have created new food products.

Discuss how the technological developments and the new food products meet the needs of the consumer.

(6)

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(Total for Question 14 = 17 marks)

TOTAL FOR PAPER = 80 MARKS



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