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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 6 June 2016 – 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 Cross-contamination can occur in the following ways:

- A** food to food
- B** food handler to food
- C** pest to food
- D** all the above

(Total for Question 1 = 1 mark)

2 The rate of natural decay depends on:

- A** carbon dioxide
- B** oxygen
- C** temperature
- D** hygiene

(Total for Question 2 = 1 mark)

3 Mould is a form of:

- A** fungi
- B** bacteria
- C** yeast
- D** germ

(Total for Question 3 = 1 mark)

4 Which **one** of the following is an oily fish?

- A** cod
- B** mackerel
- C** haddock
- D** sole

(Total for Question 4 = 1 mark)

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5 The recommended daily salt intake for an adult should not exceed:

- A 1g
- B 6g
- C 60g
- D 600g

(Total for Question 5 = 1 mark)

6 One method of cooking that does **not** use fat as a cooking medium is:

- A deep frying
- B roasting
- C steaming
- D stir frying

(Total for Question 6 = 1 mark)

7 Cholesterol is:

- A a highly perishable food
- B a natural fat
- C a food with a high moisture content
- D a nutrient

(Total for Question 7 = 1 mark)

8 Nano technology is:

- A the manufacture and use of materials and structures at molecular scale
- B something that naturally decays and breaks down over time
- C temperature control
- D a type of packaging material

(Total for Question 8 = 1 mark)



9 The term 'pulses' is used for:

- A maize, rice and oats
- B soya, quorn and quinoa
- C beans, peas and lentils
- D liver, kidneys and heart

(Total for Question 9 = 1 mark)

10 An anti-caking agent is used in food products to:

- A improve the nutritional content of food
- B make a product rise, therefore improving its texture
- C prevent lumps in dry powder mixes
- D act as an emulsifier

(Total for Question 10 = 1 mark)



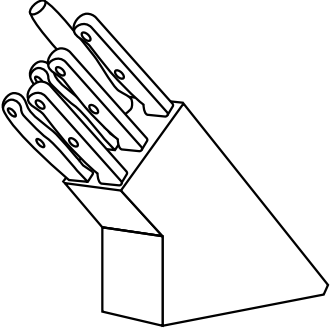
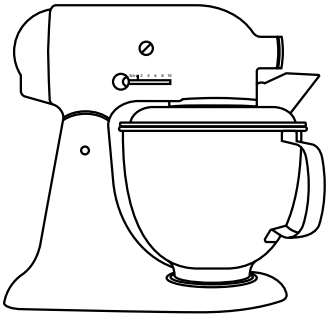
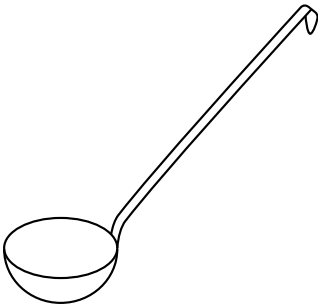

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11 (a) The table below shows some tools and equipment.

Complete the table by giving the missing names and uses.

Tool/Equipment	Name	Use
	(1)	To store sharp kitchen tools
	(1)	To combine ingredients
	Ladle	(1)
	First aid kit	(1)



(b) Cereals are a rich source of carbohydrates.

Name **two other** nutrients found in cereals.

(2)

1

2

(c) Cereals are crops cultivated for their edible seeds.

Give **one** use for each of the following cereals used in food production.

(2)

(i) Oats

.....

(ii) Corn

.....

(d) Describe the difference in composition between white flour and wholemeal flour.

(2)

.....

.....

(e) Describe **one** advantage for the manufacturer of using cornflour in readymade foods.

(2)

.....

.....

(f) Explain why reheated cooked rice is a high risk food.

(2)

.....

.....



(g) The following recipe was used to produce a prototype pizza:

250g strong plain flour

25g butter

1 sachet fast action yeast

150ml warm water

1 onion

50g tomatoes

25g pesto

50g cheese

50g cooked bacon

Describe **two** modifications that would make the pizza suitable for someone following a low fat diet.

(4)

1

.....

.....

2

.....

.....

(Total for Question 11 = 18 marks)



12 A manufacturer is developing a new range of chilled layered desserts to be sold in the chilled section of a supermarket.

Design specification

The specification for the chilled layered desserts is that they must:

- use a dairy food in one named component
- contain one named crunchy textured component
- use a named setting process in one component
- be high in vitamin C
- include a finishing technique
- have a three-day shelf life
- be single portion
- be sustainable.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the chilled layered dessert 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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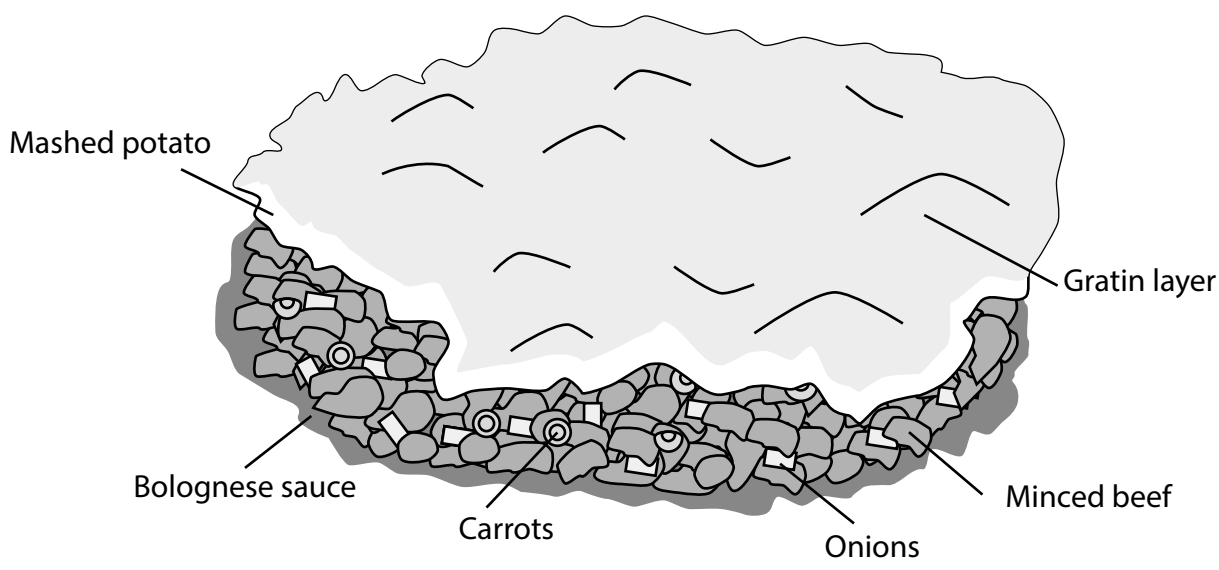
Design idea 2

(8)

(Total for Question 12 = 16 marks)



13 The drawing below shows a cottage pie sold in the freezer section of a supermarket.



(a) Name a method of size reduction used for **one** ingredient in the preparation of the cottage pie.

(1)

.....

(b) Before preparing the bolognese sauce, the onions are caramelised.

Describe the caramelisation process.

(2)

.....

(c) The cottage pie has been prepared and processed by the manufacturer.

Give **two** advantages of using the freezing process for the cottage pie.

(2)

1

2

(d) Describe **one** effect of cooking on the nutritional value of foods.

(2)

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(e) Describe how traceability is used to ensure consumer safety during the manufacturing process.

(2)

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.....

(f) Explain why the cottage pie successfully meets the following specification points:

(i) contains a range of flavours and textures

(2)

.....

.....

.....

.....

(ii) suitable for young children

(2)

.....

.....

.....

.....



* (g) Evaluate the cost of the animal and plant protein ingredients used in the cottage pie.

(6)

Area with horizontal dotted lines for writing the answer.

(Total for Question 13 = 19 marks)

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*(e) Discuss the ways in which the following methods of preservation can affect the shelf life of foods:

Dehydration

Canning

(6)

Area with horizontal dotted lines for writing the answer.

(Total for Question 14 = 17 marks)

TOTAL FOR PAPER = 80 MARKS

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