

GCSE

Specimen Papers and Mark Schemes

**Edexcel GCSE
Design & Technology: Food Technology
Short course (3970)**

**For First Examination
Summer 2003**

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Answer ALL questions in the spaces provided.

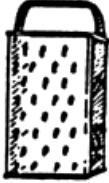
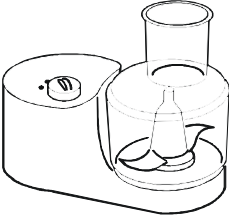


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1. The table below shows either some food tools or components or equipment.

(a) Complete the table by:

- (i) naming each tool or component or equipment;
- (ii) describing its use.

The first one has been done for you.

TOOL/ COMPONENT/ EQUIPMENT	NAME	USE
	Box grater	Grate food into small pieces
		
		
		

(6)

(b) The grater in the table has four different sides so that it can be used with a variety of foods.

(i) Name **two** different foods the grater could be used for.

1

2

(2)

(ii) Name **one** safety rule to use when cleaning the grater.

.....

(1)

(c) Electric food processors have several grater attachments.

Name **two** different food processor attachments used in the preparation of the ingredients for a salad.

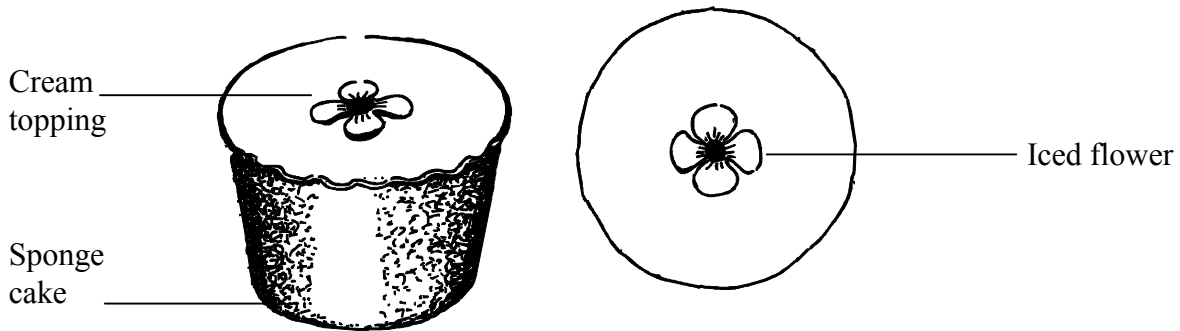
1

2

(2)

(Total 11 marks)

2. A small bakery has launched a range of cream cakes similar to the one shown in the diagram below.



(a) The iced flower is an important part of the finished cake.

(i) Give **two** reasons for using the iced flower.

1

2

(2)

(ii) The iced flower is made from icing sugar and egg white.

Explain **one** health problem of using egg white.

.....

.....

(2)

(b) The top of the cake could be coated using different ingredients.

(i) Name **three** other ways of coating the top of the cake.

- 1
- 2
- 3

(3)

(ii) Choose **two** coatings from your answer in (b)(i) and explain why they are suitable.

Coating 1

Explanation.....

.....

Coating 2

Explanation.....

.....

(4)

(Total 11 marks)

4. The diagram below shows the packaging from a packet of frozen beef burgers.



ADDITIONAL INFORMATION

Beef burgers appeal to both adults and children.
Beef burgers provide protein and energy.
They can be eaten as a snack or as part of main meal.

(a) Two specification points for the beefburgers are:

- they must be well shaped;
- they must be quick to cook.

Give **three** more points of specification which could be included in the specification for these beefburgers. For each point, give a reason why it should be included.

1

Reason

2

Reason

3

Reason

(6)

(b) Name **three** ingredients which are used to make beef burgers.

Leave blank

1

2

3

(3)

(c) Give **one** property for **one** of the ingredients you have named in (b) and explain how this property makes it suitable for this product.

Property

Explanation.....

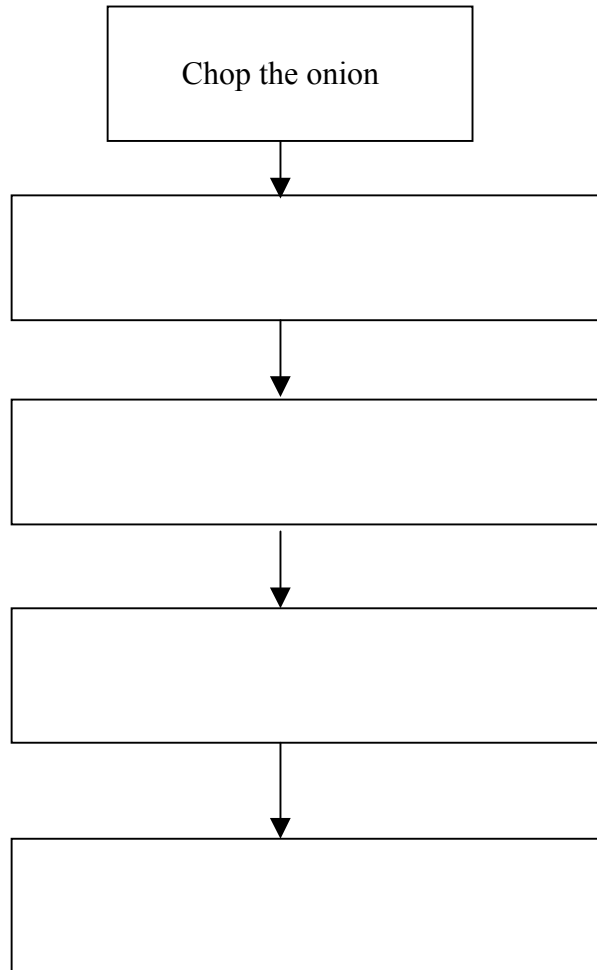
.....

.....

(4)

- (d) The frozen beef burgers are mass produced using large scale mass production methods. Complete the diagram below to show the main stages in the production process.

The first stage has been done for you.



(5)

- (e) Frozen beef burgers can be used as a quick cook part of a snack or meal. Describe how the production process helps achieve this.

.....

.....

.....

.....

(4)

(Total 22 marks)

PAPER TOTAL 44 MARKS

END

Answer ALL questions in the spaces provided.

Leave
blank

1. The diagram below shows the packaging from a packet of frozen beef burgers.



ADDITIONAL INFORMATION

Beef burgers appeal to both adults and children.

Beef burgers provide protein and energy.

They can be eaten as a snack or as part of main meal.

- (a) Two specification points for the beefburgers are:

- they must be well shaped;
- they must be quick to cook.

Give **three** more points of specification which could be included in the specification for these beefburgers. For each point, give a reason why it should be included.

1

Reason

2

Reason

3

Reason

(6)

(b) Name **three** ingredients which are used to make beef burgers.

1

2

3

(3)

(c) Give **one** property for **one** of the ingredients you have named in (b) and explain how this property makes it suitable for this product.

Property

Explanation.....

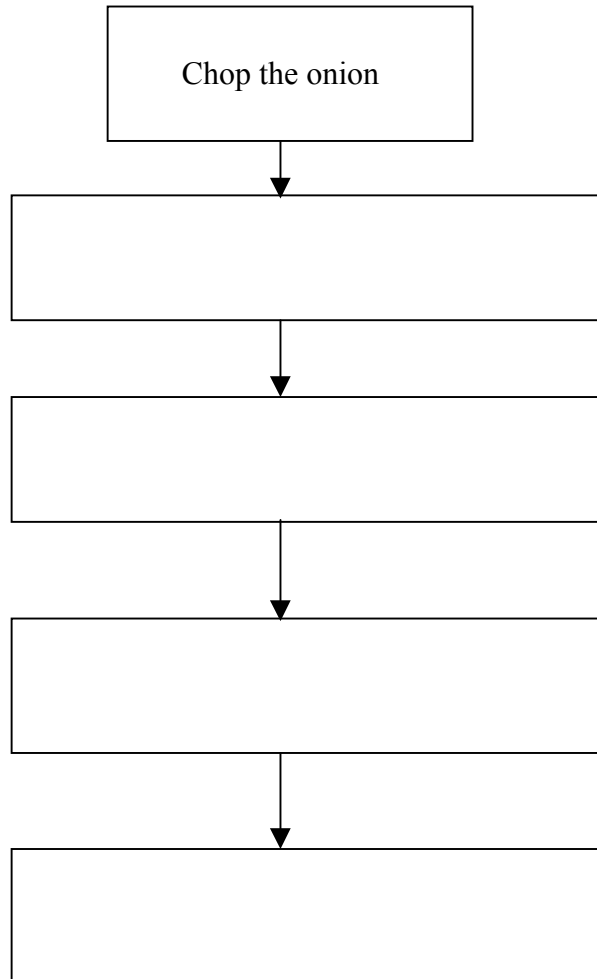
.....

.....

(4)

- (d) The frozen beef burgers are mass produced using large scale mass production methods. Complete the diagram below to show the main stages in the production process.

The first stage has been done for you.



(5)

- (e) Frozen beef burgers can be used as a quick cook part of a snack or meal. Describe how the production process helps achieve this.

.....

.....

.....

.....

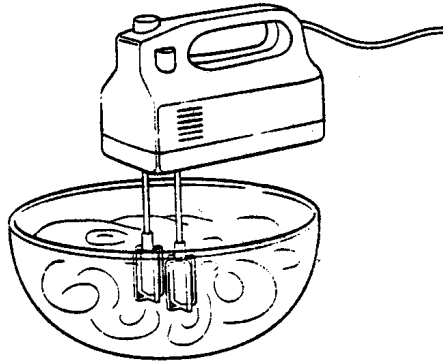
(4)

(Total 22 marks)

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TURN OVER FOR QUESTION 2

2. The picture below shows a hand held electric food mixer.



(a) (i) Give **three** reasons why these food mixers are so popular.

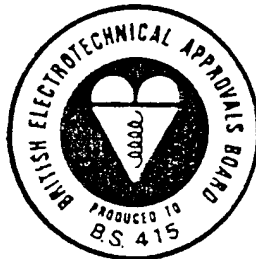
1

2

3

(3)

(ii) A new electric food mixer had the following label on it.



Name this label and explain what this label means.

Name

Explanation

.....

(3)

Leave blank

(b) Egg whites can be whisked to a foam using a food mixer.

(i) Name **three** different food products that use whisked egg whites in the mixture.

- 1
- 2
- 3

(3)

(ii) Explain what happens to the foam when egg yolks are added to the mixing bowl.

-
-

(2)

(Total 11 marks)

3. Shelf life is an important consideration for manufacturers of high volume products.

(a) Give **three** reasons why shelf life is such an important consideration.

- 1
- 2
- 3

(3)

(b) Food components must be stored correctly to keep them fresh and safe to eat.

(i) Describe the correct storage conditions for:

- 1. A chocolate mousse.....
.....
- 2. A packet cake mix
.....

(4)

(ii) Packet cake mixes have a long shelf life.

Explain **two** ways in which this is achieved.

- 1
-
- 2
-

(4)

(Total 11 marks)

PAPER TOTAL 44 MARKS

END

**DESIGN & TECHNOLOGY: FOOD TECHNOLOGY (3970/2F)
SHORT COURSE FOUNDATION TIER MARK SCHEME**

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total	
1.	(a)	(i)	Name: Food processor Name: Sieve Name: Whisk	3x1	(6)	
		(ii)	Use: Mixing, chopping etc Use: Draining juice/removing lumps/sieving flour Use: Whisking cream/eggs/egg white sauce	3x1		
	(b)	(i)	One mark for each food. Must Show use of different size grater. Cheese/vegetables/fruit rinds	2x1		(2)
		(ii)	Grating fingers/when washing up remove food	1		(1)
(c)		Answers should show two different size grater attachments Fine grater – carrots/onions Coarse grater – cabbage/root vegetables Slicer – cucumber	2x1	(2)		
					(11)	
2	(a)	(i)	Colour, attract the customer, decoration	2x1	(2)	
		(ii)	Explanation makes reference to: Salmonella bacteria present in most eggs, Can cause food poisoning	2x1	(2)	
	(b)	(i)	Confectioner's cream/buttercream/fondant icing/galce/water icing/chocolate	3x1	(3)	
		(ii)	No marks for the choice Explanation makes reference to: suitability e.g. sweetness; flavour; keeping quality	2x2	(4)	
				(11)		
3	(a)		Accept any three relevant points of specification and reasons eg Point: High meat content Reason: Maximise protein content Point: Not too much seasoning/flavouring Reason: For health reasons Point: Cook using a variety of different methods Reason: Versatility	6x1	(6)	
	(b)		Beef, onion, cereal, binding agent (egg), salt	3x1	(3)	

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
	(c)		One mark for name, three for explanation Meat – coagulates on cooking to set the burger/provides protein for the meal. Cereal – helps bind the burger/ adds bulk to make it filling Egg - binds the ingredients to prevent them falling apart Salt - seasoning and preservative to add/increase flavour Shelf life	1+3	(4)
	(d)		No marks for cooking the burger it is a frozen product Mix raw ingredients Bind with egg Shape/stamp Freeze Correct sequence	4x1 1	(5)
	(e)		Evaluation points should include Quick cook Convenient because frozen Fry, grill or microwave to cook Protein provided for part of the meal	2x2	(4)
					(22)
			TOTAL FOR PAPER 44 MARKS		

**DESIGN & TECHNOLOGY: FOOD TECHNOLOGY (3970/2H)
SHORT COURSE HIGHER TIER MARK SCHEME**

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total	
1	(a)		Accept any three relevant points of specification and reasons eg Point: High meat content Reason: Maximise protein content Point: Not too much seasoning/flavouring Reason: For health reasons Point: Cook using a variety of different methods Reason: Versatility	6x1	(6)	
			(b)	Beef, onion, cereal, binding agent (egg), salt	3x1	(3)
			(c)	One mark for name, three for explanation Meat – coagulates on cooking to set the burger/provides protein for the meal. Cereal – helps bind the burger/ adds bulk to make it filling Egg - binds the ingredients to prevent them falling apart Salt - seasoning and preservative to add/increase flavour Shelf life	1+3	(4)
			(d)	No marks for cooking the burger it is a frozen product Mix raw ingredients Bind with egg Shape/stamp Freeze Correct sequence	4x1 1	(5)
			(e)	Evaluation points should include Quick cook Convenient because frozen Fry, grill or microwave to cook Protein provided for part of the meal	2x2	(4)
					(22)	
2	(a)	(i)	Reasons can include Speed up process, therefore time efficient Make a more professional job Consistency and finer finish Lightweight	3x1	(3)	
		(ii)	Electrical safety label Ensures that equipment tested to/ meets BSI safety standards Assurance of quality	1 2x1	(3)	
	(b)	(i)	Meringues, mousses, soufflés, desserts and any other suitable choice	3x1	(3)	
		(ii)	Explanation needs to include the concept that the fat in egg yolk prevents protein web forming.	2x1	(2)	
					(11)	

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
3	(a)		Any 3 reasons from: The factory may need to store ingredients/ goods until needed There is a time lapse between manufacture and sale to consumer. Reduce waste/ increase profit if goods keep well	3x1	(3)
	(b)	(i)	Description makes reference to: Refrigerate 2- 5°C conditions Dry, cool conditions	2x2	(4)
		(ii)	Explanation which makes reference to: Dry product therefore bacteria cannot breed Use of preservatives as additives	2x2	(4)
					(11)
			TOTAL FOR PAPER 44 MARKS		

**DESIGN & TECHNOLOGY: FOOD TECHNOLOGY (3970)
SPECIFICATION GRID**

PAPER 2F				
Quest	Assessment objective tested	Content covered by question	Question style/type	Marks
1	AO1	Preparing, processing and finishing materials.	Structured question on a theme.	Total 11
2	AO1	Classification and selection of materials and components.	Structured question on a theme.	Total 11
3	AO3	Design and market influence.	Product analysis – candidates are asked to analyse a product following the analysis process.	Total 22
PAPER 2H				
Quest	Assessment objective tested	Content covered by question	Question style/type	Marks
1	AO3	Design and market influence.	Product analysis – candidates are asked to analyse a product following the analysis process.	Total 22
2	AO1	Preparing, processing and finishing materials.	Structured question on a theme.	Total 11
3	AO1	Classification and selection of materials and components.	Structured question on a theme.	Total 11

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