

Oxford Cambridge and RSA Examinations
General Certificate of Secondary Education

DESIGN AND TECHNOLOGY (FOOD TECHNOLOGY)
PAPER 1
FOUNDATION TIER

1954/1
1054/1

Specimen Paper 2003

Additional Materials: None
Candidates answer on the question paper.

TIME 1 hour

Candidate Name	Centre Number	Candidate Number										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table>					

INSTRUCTIONS TO CANDIDATES

- Write your name in the space above.
- Write your Centre number and Candidate number in the boxes above.
- *Answer all the questions.*
- Write your answers, in blue or black ink, in the spaces provided on the question paper.
- Read each question carefully and make sure you know what you have to do before starting your answer.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **50**.
- *You will be awarded marks for the quality of written communication where an answer requires a piece of extended writing.*

Question number	For examiner's use only
1	
2	
3	
4	
5	
TOTAL	

1. A food manufacturer is developing a cook/chill lasagne.
- (a) On the drawing of the product sleeve below, label the information shown.



Fig. 1

[4]

- (b) The main ingredient in the lasagne filling is meat. Suggest **two** other ingredients which could be added to the filling to add colour and flavour.

Colour _____

[1]

Flavour _____

[1]

[Question 1 continued on the next page]

Question 1 continued

- (c) Where are cook/chill products stored in a supermarket and suggest why this is suitable.

Storage _____ [1]

Suitability _____ [1]

- (d) Food manufacturers use colour coded equipment for the preparation of food. What is the recommended colour of a “chopping board” for the following foods?

Food	Colour
Raw meat	
Veg	

[2]

Total [10]

[Turn Over]

2. A fast food manufacturer wants to produce a new range of children's meals aimed at 5-10 year olds.

(a) What type of research might the fast food outlet carry out before developing a new children's meal?

[2]

(b) Why is it important to carry out research?

[1]

(c) From the research, give **three** points that might appear in the specification.

[3]

(d) List **three** ways in which the fast food outlet might promote the new meal.

[3]

(e) How would the fast food manufacturer evaluate the success of the product?

[1]

Total [10]

3. Character shaped biscuits are popular with young children.

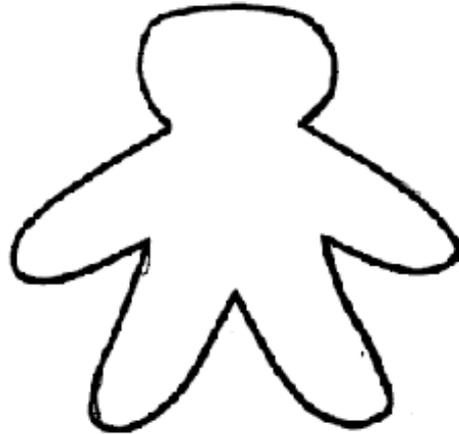


Fig. 2

(a) Name **two** methods of shaping these biscuits.

_____ [1]

_____ [1]

(b) CAM (Computer Aided Manufacture) is used in industry to help control the quality of the biscuit. Give **two** examples where CAM is used in the production of these biscuits.

_____ [2]

_____ [2]

[Question 3 continued on next page]

Question 3 continued

- (c) What is the process of enrobing and why is it important for it to be computer controlled?

[2]

- (d) How can CAD (Computer Aided Design) be used to assist in the design of packaging?

[2]

Total [10]

4. A food manufacturer wishes to develop a range of savoury cheese flans. A prototype flan has the following specification.

Pastry Case	Filling
200g plain flour	250ml milk
100g fat	2 eggs
$\frac{1}{4}$ teaspoon salt	75g cheese
water to mix	50g chopped onion
	salt & pepper

- (a) Explain the function of each ingredient during the preparation and cooking of the cheese flan.

Ingredient	Function
Fat	
Water	
Salt	
Eggs	

[4]

[Question 4 continued on next page]

Question 4 continued

- (b) The test kitchen would like to develop the specification to extend the product range. Suggest **two** changes, with reasons, which could be made to the prototype.

Change 1:	Reason:
Change 2:	Reason:

[4]

- (c) Give **two** reasons why egg products are classed as high-risk foods.

[2]

Total [10]

5. A food manufacturer produces 'salads in a tub.'

Coleslaw:
Ingredients
Cabbage (53%)
Mayonnaise
Carrots (18%)
Onion (2%)
Lactic Acid
Acetic Acid
Nutritional Information
Per ½ pot 109 calories (9.4g fat)



(a) Look at the label.

State why cabbage is shown at the top of the list.

[1]

(b) (i) Name **one** ingredient from the product label that contributes to the fat content.

[1]

(ii) Suggest an alternative that would reduce the fat content.

[1]

[Question 5 continued on next page]

Question 5 continued

- (c) (i) Name **one** ingredient that contributes to the NSP (Non Starch Polysaccharide)

_____ [1]

- (ii) Suggest an ingredient that would increase the NSP of this product.

_____ [1]

- (d) A food manufacturer wants to extend the range of 'salads in a tub.'

- (i) Design a new product, clearly listing the main ingredients.

_____ [4]

- (ii) Identify the market for which the product is intended.

_____ [1]

Total [10]

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MARK SCHEME

Specimen Paper 2003

Question	Answer	Total Marks Available
1(a)	To be labelled: Recycling, Cooking Instructions, Bar Code. 'e' denotes that it is an average quantity	4
(b)	Colour – tomato, carrots and pepper Flavour – onion, mushroom, mixed herbs, red peppers, garlic puree, tomato puree.	1 1
(c)	Storage – fridge Suitability – quality (preserves), meets Health and Safety Regulations.	1 1
(d)	Raw Meat – Red Vegetables – Green	1 1
		Total 10

2(a)	Questionnaires to evaluate existing products Consumer focus groups Surveys Letters to see what is already available	2
(b)	To find out if there is a need for a particular product.	1
(c)	(Three from) Cost, taste, flavour, appearance, texture, nutrition.	3
(d)	Advertising, toys, special offers.	3
(e)	(One from) Survey the users, look at sales figures.	1
		Total 10

Question	Answer	Total Marks Available
<p>3(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p>	<p>(Two from)</p> <p>Cutters, rollers with blades, templates, moulds, by hand.</p> <p>To control temperature – control in baking and in storage To control time – mixing ingredients Moisture test – baking quality/for storage</p> <p>Involves covering the biscuit e.g.: in chocolate</p> <p>Why? To make sure that there is an even thickness all round.</p> <p>Professional finish, explore the use of packaging net, create an image quicker, saves time, can be modified easily.</p>	<p>2 x 1</p> <p>2 x 2</p> <p>2</p> <p>2</p>
Total 10		

<p>4(a)</p> <p>(b)</p>	<p>Fat – Coats flour grains to stop gluten forming when water is added, to make sure that the pastry has a short crumbly texture.</p> <p>Water – Binds rubbed in fat/flour mix together, allows pastry to be rolled out easily.</p> <p>Salt – Helps to develop flavour</p> <p>Eggs – When heated sets the milk</p> <p>Two changes from:</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 10px;">Broccoli</td> <td rowspan="6" style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; width: 20px;"></td> <td rowspan="6" style="padding-left: 10px;">Nutritional Value</td> </tr> <tr><td style="padding-right: 10px;">Spinach</td></tr> <tr><td style="padding-right: 10px;">Tomato</td></tr> <tr><td style="padding-right: 10px;">Pepper</td></tr> <tr><td style="padding-right: 10px;">Mushroom</td></tr> <tr><td style="padding-right: 10px;">Ham</td></tr> </table> <p>Combination of cheeses – to improve colour/flavour and texture.</p>	Broccoli		Nutritional Value	Spinach	Tomato	Pepper	Mushroom	Ham	<p>4</p> <p>4</p>
Broccoli		Nutritional Value								
Spinach										
Tomato										
Pepper										
Mushroom										
Ham										

Question 4 continued

Question	Answer	Total Marks Available
4(c)	<p>Two from:</p> <p>Salmonella, high protein and moisture content, provide ideal conditions for micro-organic growth.</p>	2
		Total 10

5(a)	Has the highest quantity of it in the ingredients. They are stated in descending order.	1
(b) (i)	Mayonnaise	1
(b) (ii)	Alternative: Low fat mayonnaise, crème fraiche, mustard	1
(c) (i)	<p>One from:</p> <p>Cabbage, carrot, onion</p>	1
(c) (ii)	Add: Pulses, nuts, other vegetables (e.g.: celery)	1
(d) (i)	Potato Salad – Potato/Spring Onion/Mayonnaise/Chives/Peppers	
	Pasta Salad – Spring Onions/Chives/Tomatoes/Salami/Mushroom/Red Pepper	4
(d) (ii)	<p>One from:</p> <p>Picnic/Barbecue/Packed lunches/Summer buffet</p>	1
		Total 10