

Oxford Cambridge and RSA Examinations
General Certificate of Secondary Education

DESIGN AND TECHNOLOGY (FOOD TECHNOLOGY)
 PAPER 3
 FOUNDATION TIER

1954/3

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: 15%; height: 20px;"></td> </tr> </table>							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; 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.



The balance of good food

- (a) The government recommendation is that we should try to include more fruit and vegetables in our diet.

Give **two** reasons why we should eat more fruit and vegetables.

1 _____

2 _____ [2]

- (b) Why is it important to eat a variety of fruit and vegetables?

_____ [1]

- (c) The range of different fruits and vegetables on sale in supermarkets has increased over the years. Give **two** reasons for this increase.

1 _____

2 _____ [2]

[Question 1 continued on the next page]

1. (d) The Government is trying to encourage us all to eat at least five portions of fruit and vegetables a day. Using each of the headings below suggest how you could meet this target in one day.

Breakfast _____

Mid-morning snack _____

Packed lunch _____

Drink _____

Evening meal _____ [5]

Total [10]

2. A food manufacturer wants to develop a nutritious snack, which would appeal to teenagers.

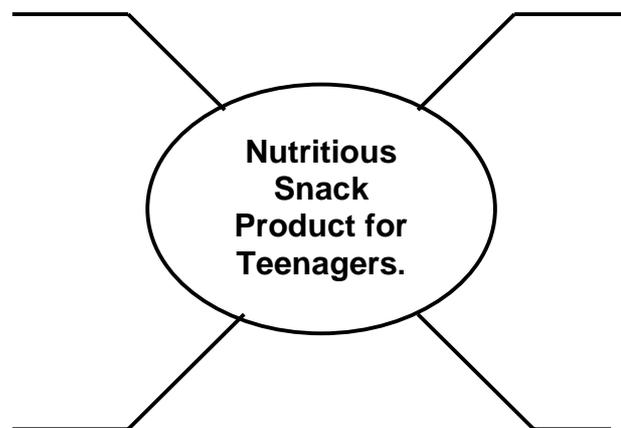
- (a) (i) Give **two** methods of market research.

_____ [1]

_____ [1]

- (b) A spider diagram is drawn to identify the specification for this product.

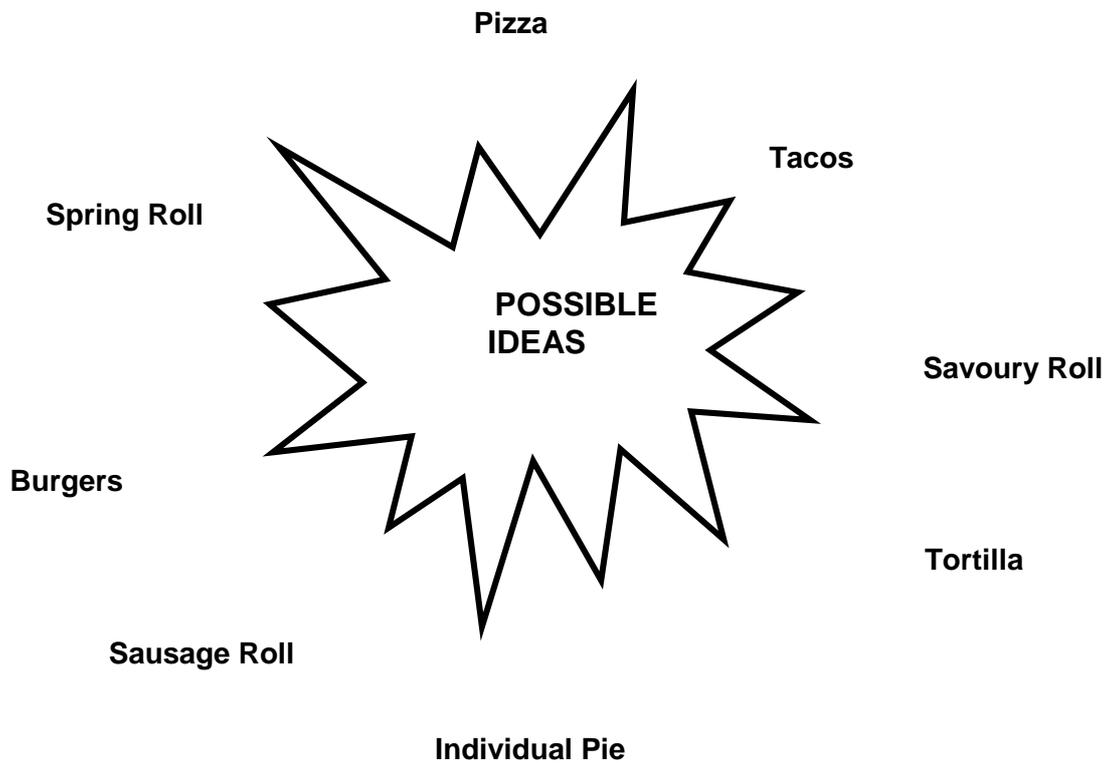
Complete the spider diagram.



Easy to Package

[3]

- (c) After analysis of the market research a general specification is produced.
The following existing products are identified as possible ideas for the product.



- (i) Give **two** further ideas for suitable products.

[2]

- (ii) List **three** stages that would be carried out before the final idea is chosen.

1

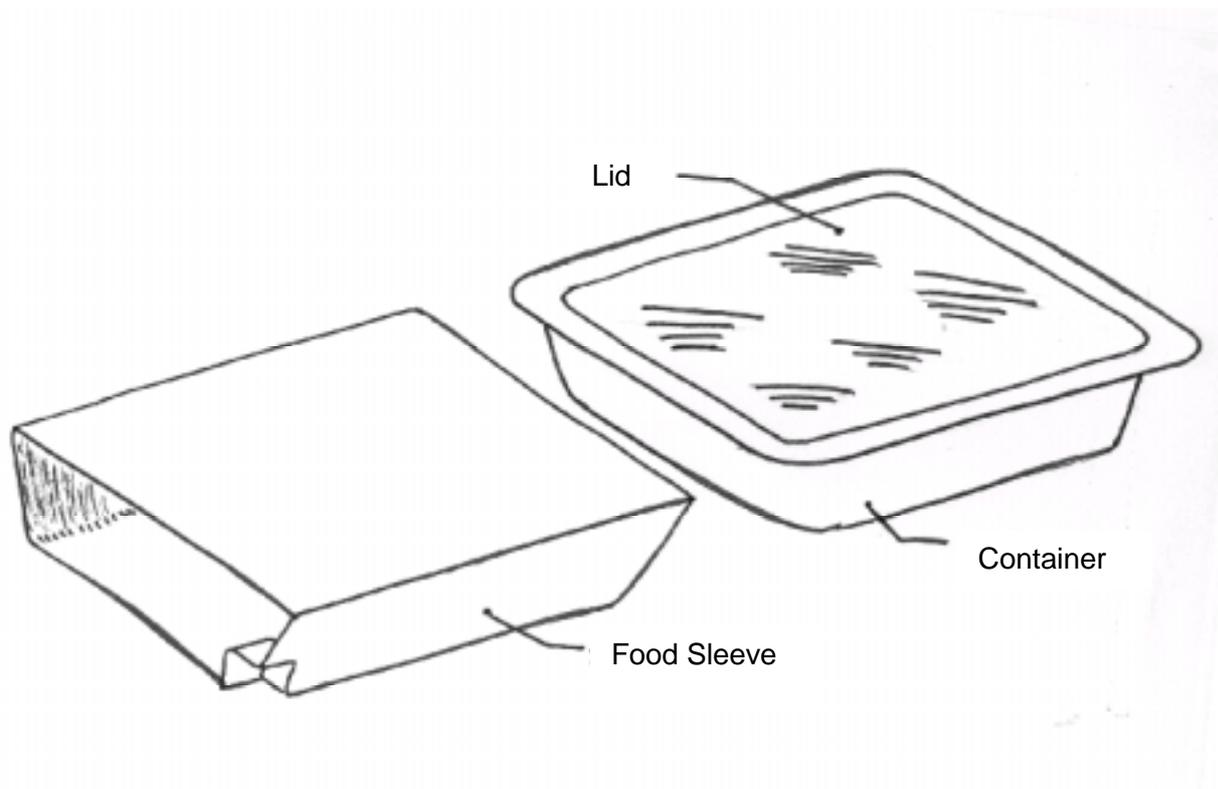
2

3

[3]

Total [10]

3. Ready meals are now very popular. The packaging enables them to be readily identified and easily transported.



- (a) Draw the symbol to show that the packaging is recyclable.

[1]

[Question 3 continued on the next page]

Question 3 continued

(b) In what order are the ingredients listed on the food product?

_____ [1]

(c) Materials used for packaging food products need careful selection.

(i) Complete the table below.

Part of Package	Material	Property of Material Chosen
Lid	Transparent plastic film	
Container		Flexibility, microwavable, Moisture proof.
Food sleeve		

[4]

(ii) Suggest two products that could be packaged in this way.

_____ [2]

(d) How might the design of the packaging attract the customer?

_____ [2]

Total [10]

4. In a factory making frozen Lasagne, particular care has to be taken in separating raw materials from the finished product.

(a) Give **three** reasons why this is necessary.

[3]

(b) A HACCP (Hazard Analysis and Critical Control Point) system is set up to ensure product safety.

List **three** HACCP checks that would be carried out during the production of the frozen Lasagne.

[3]

(c) Computer control is used by the manufacturer to ensure quality of the frozen lasagne.

List **four** ways that computer systems can assist the manufacturer in this process.

[4]

Total [10]

5. A snackfood company currently uses hand tools to prepare food for its 'Healthy Snack' food outlet.

(a) Name a piece of **electrical** equipment that the company could use to prepare fresh vegetables.

_____ [1]

(b) Give **two** benefits to the catering company of using this equipment.

_____ [1]

_____ [1]

(c) As a Food Technologist, you have been asked to extend the range of healthy food products.

Choose **two** products, **one** of which must be a drink. For each product give the name of a machine most likely to be used in its' manufacture.

New Product _____ [1]

Machine _____ [1]

New Drink _____ [1]

Machine _____ [1]

(d) The profitability of the company will be affected if electrical equipment is misused. Give an example of misuse and explain the implications to the company.

_____ [3]

Total [10]

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MARK SCHEME

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Question	Answer	Total Marks Available
1(a)	<p>Two from:</p> <p>Medical evidence that the risk of certain disease is reduced.</p> <p>Add texture and a variety of flavours.</p> <p>Good source of NSP.</p> <p>Good source of vitamins, minerals and carbohydrates.</p>	2
(b)	To obtain a variety of vitamins and minerals.	1
(c)	<p>Exposure to different fruit and vegetables from travel.</p> <p>Public demand for a healthier diet.</p>	2
(d)	<p>Any suitable answers such as:</p> <p>Breakfast: Prunes / beans on toast / fresh fruit salad / grapefruit/ orange juice</p> <p>Mid-morning snack: Apple/banana</p> <p>Packed Lunch: Celery sticks / grapes/ salad sandwich / tomatoes/ jacket potato / vegetable soup</p> <p>Drink: Orange juice / apple juice/ carrot juice</p> <p>Evening Meal: Dinner with fresh vegetables e.g.: peas, cauliflower, broccoli.</p>	5
		Total 10

Question	Answer	Total Marks Available
<p>2(a)</p> <p>(b)</p> <p>(c) (i)</p> <p>(ii)</p>	<p>Two From:</p> <p>Questionnaires, surveys, looking at existing products, secondary research e.g.: looking at reports on social trends.</p> <p>Choose from:</p> <p>Easy to eat, high in fibre, low in fat, nutritional information, cost and value for money, green issues, appealing to the teenage market e.g.: trendy.</p> <p>Pasty, vegetable curry, vegetable stir fry, quorn pasty/pie.</p> <p>Product tested and trialled e.g.: to see if it can be made in a factory.</p> <p>Sourcing ingredients e.g.: where to buy them from</p> <p>Sensory Analysis e.g.: taste and appearance</p> <p>Packaging</p>	<p>2 x 1</p> <p>3</p> <p>2</p> <p>3</p>
Total 10		

Question	Answer	Total Marks Available
3(a)		1
(b)	Descending order by weight	1
(c) (i)	<p>Lid – Transparent Plastic Film – Stops liquid leakage/Protects from dust and contamination.</p> <p>Container – Rigid Foil – Flexibility, microwavable</p> <p>Oven proof card – Moisture Proof</p> <p>Food sleeve – Wax coated card – Freezable/Protects it from being crushed / able to put information on packaging.</p>	4
(d) (ii)	<p>Two from:</p> <p>Fish pie/pasta bake/chicken casserole/vegetable mornay/Indian dishes.</p> <p>Artwork/Colourful/ Reflects what the product is and what it is aiming at/can be stacked easily if it is a regular shape.</p>	2
		Total 10

Question	Answer	Total Marks Available
4 (a)	To avoid cross contamination/ to stop different flavours/ vegetables and meat cannot cross/ Dry and wet ingredients cannot mix.	3
(b)	Choose From: Check that meat is stored in a refrigerator/ check food handlers for hygiene/ check that equipment has been kept clean/ check work surfaces have been washed and dried/ check ingredients have been stored carefully/ check water quality.	3
(c)	Sensing temperature/ Control conveyor belts/ quantity of ingredients (weighing)/ timing/ information on labels.	4
		Total 10

5	Food processor	1
(a)	Saves time / saves labour costs / uniformity	2 x 1
(b)	Toasted sandwich Bread Rolls Yoghurt Juice	Toasted sandwich maker Bread Maker Yoghurt Maker Juice Extractor
(c)	No guards on electrical machinery – can catch fingers – the implication to the company is that it can be sued.	4 x 1 3
		Total 10

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