

Answer ALL questions in Section A and Section B.

SECTION A

Answer ALL questions in this section. Write your answers in the spaces provided.

1. All of the products listed below belong to a manufacturing sector.

(a) Tick the **two** boxes below where the products belong to the **food and drink** sector.

Products	Tick two boxes below
Oven mitt	
Cake tin	
Ring spanner	
Pineapple juice	
Paper towel	
Chocolate cheesecake	

(2)

(b) Tick the **two** boxes below where the products belong to the **biological and chemical** sector.

Products	Tick two boxes below
Washing powder	
Vegetable oil	
Cereal box	
Microwave oven	
Glass bottle	
Bakers yeast	

(2)

Q1

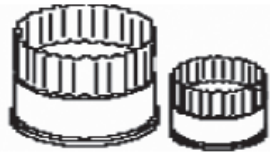
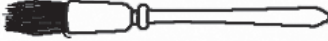
(Total 4 marks)



2. The tables below show some equipment used in the manufacture of food products.

(a) Complete Table 1 by naming the equipment.



Table 1

Equipment	Equipment name	Use
		To cut consistent shapes from rolled out mixtures.
		To apply egg glaze to products before baking.

(2)

(b) Complete Table 2 by explaining the use of the equipment.

Table 2

Equipment	Equipment name	Use
	Weighing scale	
	Rolling pin	

(4)

(Total 6 marks)

Q2



3. Draw a straight line to link each term listed below to the correct key area.

Each key area can be used more than once.

Term

Key Area

Continuous operation
(1)

Information and communications technology (ICT)

Computer-aided design (CAD)
(1)

Databases
(1)

Control technology

Chemical aerators
(1)

Automation
(1)

Modern materials

Antioxidants
(1)

(Total 6 marks)

Q3



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4. Virtually fat free fruit yogurt belongs to the food and drink sector.

(a) (i) Name **one** other product from this sector, apart from virtually fat free fruit yogurt, that utilises in its manufacture information and communication technology and a modern material.

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(1)

(ii) Explain the purpose of the product.

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.....
.....
(2)

(b) (i) Name **one** stage in the manufacture of the product you gave in 4(a)(i) where information and communications technology is used.

.....
(1)

(ii) Explain **one** advantage to the **manufacturer** of using information and communications technology at this stage.

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.....
(2)

(c) (i) State **one** modern material used in the manufacture of the product you named in 4(a)(i).

.....
(1)

(ii) Describe how this modern material improves the design of the product.

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.....
.....
(2)

(Total 9 marks)

Q4





<p>5. (a) Explain three benefits to a manufacturer of using computer-aided manufacture (CAM).</p> <p>1</p> <p>.....</p> <p>2</p> <p>.....</p> <p>3</p> <p>.....</p> <p style="text-align: right;">(6)</p> <p>(b) Explain how the use of CAM in product manufacture encourages the consumer to buy the product.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p style="text-align: right;">(2)</p> <p style="text-align: right;">(Total 8 marks)</p>	<p>Leave blank</p> <p>Q5</p> <input data-bbox="1612 1457 1656 1528" type="text"/>
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6. In the food and drink, biological and chemical industries, communications technology is used to transfer information between suppliers, manufacturers and retailers.

(a) (i) State **one** type of communications technology used to transfer information between suppliers and manufacturers.

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(1)

(ii) Describe how the use of this communications technology benefits the **manufacturer**.

.....
.....
.....
(2)

(b) (i) Describe **one** way in which communications technology is used to transfer sales information from food and drink retailers to manufacturers.

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(2)

(ii) Explain how the use of this communications technology benefits the **retailer**.

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(3)

(Total 8 marks)

Q6



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7. (a) Explain **one** advantage, other than a financial benefit, of introducing automation to the production stage in food and drink manufacture.

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(2)

(b) Explain **one** disadvantage of introducing automation to the production stage in food and drink manufacture.

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(2)

(Total 4 marks)

Q7

TOTAL FOR SECTION A: 45 MARKS



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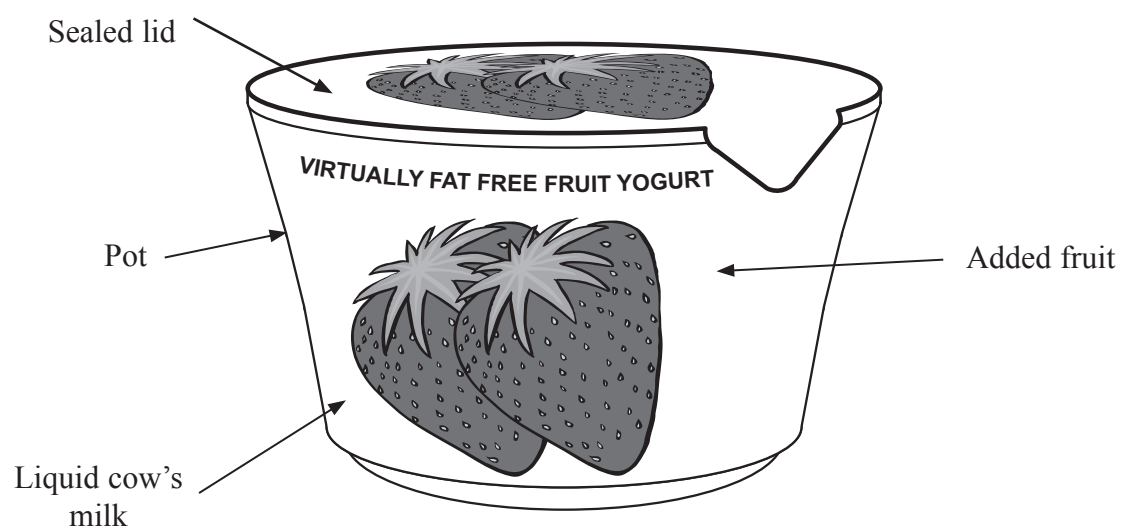
TURN OVER FOR SECTION B



SECTION B

Answer ALL questions in this section with reference to the manufacture of mass produced pots of virtually fat free fruit yogurt. Write your answers in the spaces provided.

The diagram below shows a pot of virtually fat free fruit yogurt.



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8. (a) Describe **three** functions of the added fruit.

1

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2

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3

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(3)

(b) Describe **three** functions of the liquid cow's milk.

1

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2

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3

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(3)

Q8

(Total 6 marks)

11

Turn over



9. (a) The following table indicates some of the main stages in manufacturing the virtually fat free fruit yogurt.

(i) Complete the table below by giving the **two** missing stages in manufacturing virtually fat free fruit yogurt.

Stages in manufacturing	
1	Design and development
2	
3	
4	Material supply and control
5	Production
6	Assembly
7	Packaging and dispatch

(2)

(ii) State the stage where the lids would be sealed onto the pots.

Stage

(1)

(b) Describe the following **two** stages in the manufacture of the virtually fat free fruit yogurt.

(i) Design and development

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.....
.....

(3)

(ii) Production

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.....
.....

(3)

(Total 9 marks)

Q9



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10. (a) Name the specific material commonly used in manufacturing each of the following parts of pots of virtually fat free fruit yogurt:

(i) the pot

.....
(1)

(ii) the sealed lid.

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(1)

(b) Fermentation is a production process and is used in the manufacture of virtually fat free fruit yogurt.

(i) State **three** production processes, other than fermentation, used during the manufacture of virtually fat free fruit yogurt.

1

2

3

(3)

(ii) Explain why fermentation is used.

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(2)

(c) Explain how the use of modern materials has helped the **manufacturer** of virtually fat free fruit yogurt to develop new products.

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(3)

(Total 10 marks)

Q10

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11. (a) (i) Give **one** application of quality control during the **production or packaging stage** of the manufacture of virtually fat free fruit yogurt.

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(1)

(ii) Describe how quality could be checked in this application.

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(2)

(iii) Explain how the use of quality control benefits the consumer of virtually fat free fruit yogurt.

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(3)

(b) (i) Apart from quality control, state **one type** of computer control in the **production or packaging stage** of the manufacture of virtually fat free fruit yogurt.

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(1)

(ii) Describe the use of this type of computer control.

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(2)

(c) Explain the benefits to the **manufacturer** of the use of computer control.

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(3)

(Total 12 marks)

Q11

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12. Information and communications technology (ICT) plays an important role in the manufacture and sales of virtually fat free fruit yogurt.

(a) (i) State **two** uses of ICT in the marketing stage.

1

2

(2)

(ii) Describe **one** use of ICT in the packaging and dispatch stage.

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.....

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(2)

(b) Explain **one** benefit of the use of ICT to the retailer of virtually fat free fruit yogurt.

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(2)

(c) Explain the impact ICT has on the design, development and production of virtually fat free fruit yogurt.

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(4)

(Total 10 marks)

Q12

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TURN OVER FOR QUESTION 13



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13. Automation is often introduced within the manufacture of virtually fat free fruit yogurt.

(a) Explain how the introduction of automation has impacted on product cost and the opportunity to introduce new product designs.

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(4)

(b) Evaluate the effect of the use of automation on the workforce and the working environment.

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(4)

Q13

(Total 8 marks)

TOTAL FOR SECTION B: 55 MARKS

TOTAL FOR PAPER: 100 MARKS

END

