

Answer ALL the questions in Section A and Section B.

SECTION A

Answer ALL the 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 **textiles** sector.

Products	Tick two boxes below
Carbon fibre	
Scissors	
13A plug	
Chilli powder	
Blended yarns	
MP3 player	

(2)

(b) Tick the **two** boxes below where the products belong to the **clothing** sector.

Products	Tick two boxes below
Mobile phone	
Neoprene glove	
Seat cushion pad	
Hydraulic pump	
High visibility jacket	
Assembly robot	

(2)

Q1



(Total 4 marks)



2. The two tables below show some components used in the manufacture of products.

(a) Complete **Table 1** by naming each component.



Table 1

Component	Component name	Use
		Often used as a fastener attached to the front of coats and jackets and at the back of cushions and duvet covers. Can be used as a decorative feature.
		'Sticks' two sections of fabric together using a hooking system, which sticks to a fluffy area.

(2)

(b) Complete **Table 2** by explaining what each component is used for.

Table 2

Component	Component name	Use
	Press fastener	
	Elastic	

(4)

(Total 6 marks)

Q2



Leave blank

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

Sewing machine

(1)

Information and
Communications Technology
(ICT)

Polyester

(1)

Spreadsheet

(1)

Control technology

Acrylic

(1)

Programmable logic
controllers (PLCs)

(1)

Modern materials

Word processing

(1)

(Total 6 marks)

Q3



Leave
blank

4. Hiking boots belong to the textiles and clothing sector.

(a) (i) Name **one** other product from this sector, apart from a **hiking boot**, that utilises in its manufacture a modern material and process control.

.....
(1)

(ii) Explain the purpose of this product.

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

(b) (i) State **one** stage in the manufacture of the product you named in 4(a)(i) where control technology is used.

.....
(1)

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

.....
.....
.....
(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 key features of the product.

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

(Total 9 marks)

Q4



Leave
blank

5. Information and Communications Technology (ICT) is used by manufacturers of textiles and clothing products.

(a) (i) Give **one** example of **where** a database could be used by a manufacturer.

.....
(1)

(ii) Explain **one** benefit to the manufacturer of using a database relating to this example.

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

(b) (i) Give **one** example of communications technology as used by a manufacturer.

.....
(1)

(ii) Explain **one** benefit to the manufacturer of using communications technology relating to this example.

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

(c) Explain **one** benefit to the **retailer** of the manufacturer using ICT.

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

(Total 8 marks)

Q5



Leave blank

6. Systems and control technology is now used by manufacturers to organise, monitor and control production.

- (a) Name **two** different examples of systems and control technology.
- (b) Describe the traditional method each has replaced.
- (c) Explain **one** benefit to the manufacturer of using each replacement systems and control technology.

Example 1

Systems and control technology 1
.....
(1)

Method it has replaced
.....
(1)

Benefit of replacement
.....
.....
(2)

Example 2

Systems and control technology 2
.....
(1)

Method it has replaced
.....
(1)

Benefit of replacement
.....
.....
(2)

(Total 8 marks)

Q6



Leave
blank

7. Computer-aided manufacture (CAM) is an essential feature in textiles and clothing manufacturing companies.

Explain **one** benefit that CAM has for the:

(a) Manufacturer

.....

.....

.....

.....

(2)

(b) Consumer

.....

.....

.....

.....

(2)

Q7

(Total 4 marks)

TOTAL FOR SECTION A: 45 MARKS



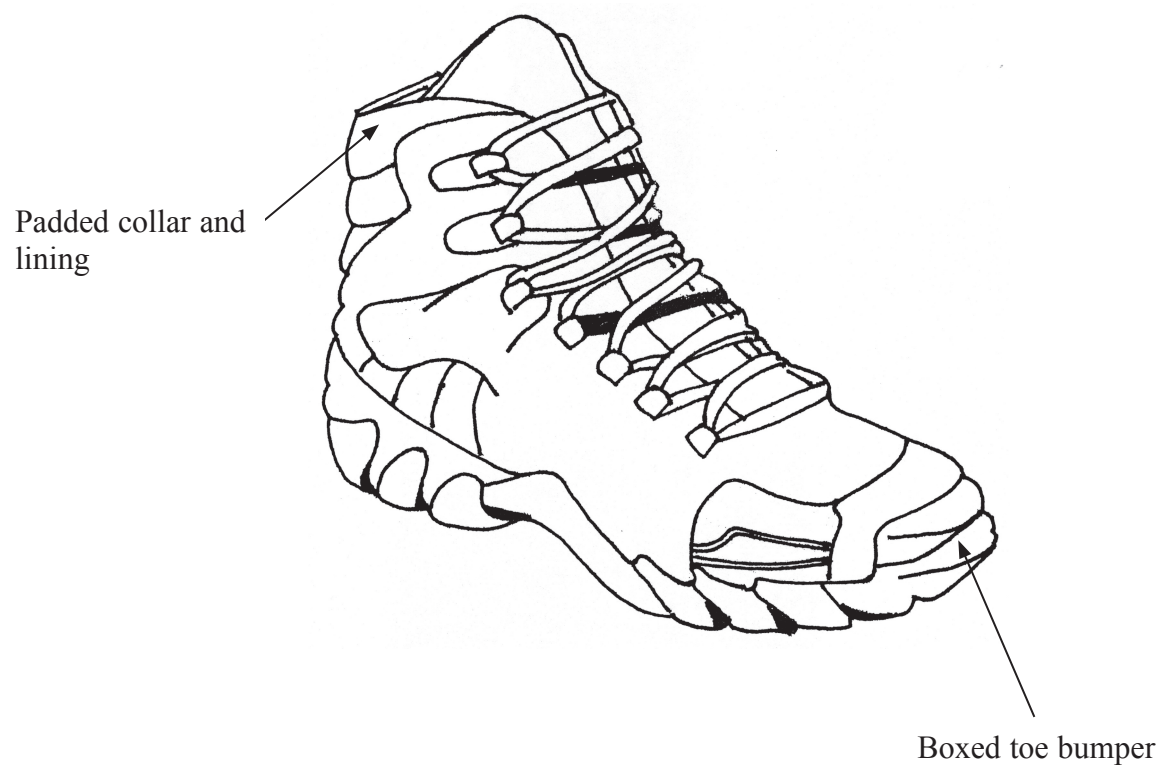
BLANK PAGE



SECTION B

Answer ALL the questions in this section with reference to the manufacture of mass produced hiking boots. Write your answers in the spaces provided.

The diagram below shows a hiking boot.



Leave
blank

8. In the boxes below, explain, using notes and sketches:

(a) the function of the padded collar and lining

Padded collar and lining

(3)

(b) the function of the boxed toe bumper.

Boxed toe bumper

(3)

Q8

(Total 6 marks)

11

Turn over



9. (a) The following table shows some of the main stages in manufacturing hiking boots.

(i) Complete the table below by giving the **two** missing stages in manufacturing hiking boots.

Stages in manufacturing	
1	
2	Marketing
3	Production planning
4	
5	Processing - Production
6	Assembly and finishing
7	Packaging and dispatch

(2)

(ii) State the stage in manufacturing where the hiking boots would be advertised.

Stage

(1)

(b) Describe the following **two** stages in the manufacture of hiking boots.

(i) Processing - Production

.....

(3)

(ii) Assembly and finishing

.....

(3)

Q9

(Total 9 marks)



Leave blank

10. Mass produced hiking boots are manufactured using modern materials and components.

(a) (i) Name **one** specific material commonly used in the production of hiking boots.

.....
(1)

(ii) Explain how this material has helped to improve the characteristics of hiking boots.

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

(b) Moulded insoles can be a feature used in hiking boots.

(i) Explain the function of moulded insoles.

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

(ii) State **two** comfort features, other than moulded insoles, used in hiking boots.

Feature 1

Feature 2

(2)

(c) Explain how the use of modern materials has helped the **manufacturer** of hiking boots to increase sales.

.....
.....
.....
.....
.....
.....
(3)

(Total 10 marks)

Q10

--	--



Leave blank

11. Automation is used in the manufacture of hiking boots.

- (a) Describe **two** examples of automation used at the **processing - production** stage of the manufacture of hiking boots.
- (b) Explain **one** benefit to the **manufacturer** of applying each type of automation.
- (c) Explain **one** benefit to the **consumer** of applying each type of automation.

Example 1

Automation Example 1
.....
..... (2)

Benefit to manufacturer
.....
..... (2)

Benefit to consumer
.....
..... (2)

Example 2

Automation Example 2
.....
..... (2)

Benefit to manufacturer
.....
..... (2)

Benefit to consumer
.....
..... (2)

(Total 12 marks)

Q11

--	--



Leave
blank

12. The use of computer-aided manufacture (CAM) and control technology in the manufacture of hiking boots has brought changes.

(a) (i) State **one** change CAM has had on the type and size of the workforce.

Change
(1)

(ii) Explain **two** different effects this change has had on the type and size of the workforce.

Effect 1
.....
(2)

Effect 2
.....
(2)

(b) (i) State **one** change control technology has had on the global environment.

Change
(1)

(ii) Explain **two** different effects this change has had on the global environment.

Effect 1
.....
(2)

Effect 2
.....
(2)

(Total 10 marks)

Q12

--	--



Leave
blank

(b) Explain how the use of modern materials and components has impacted on development costs and product costs.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(4)

Q13

(Total 8 marks)

TOTAL FOR SECTION B: 55 MARKS

TOTAL FOR PAPER: 100 MARKS

END



BLANK PAGE



BLANK PAGE



BLANK PAGE

