

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 **printing and publishing** sector.

Product	Tick two boxes below
Train ticket	
Windscreen wiper	
GCSE certificate	
Pasta sauce	
Games console	
Metal curtain rail	

(2)

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

Product	Tick two boxes below
Satellite navigation system	
Interactive whiteboard	
Windsurfing sail	
Geography encyclopaedia	
Beach sandals	
Shopping catalogue	

(2)

(Total 4 marks)



Q1



2. The tables below show some items or equipment used in the manufacture of paper or board products.

(a) Complete **Table 1** by naming the items.

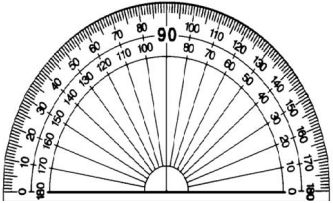

Table 1

Item	Item name	Use
		<p>A device used to join together sheets of paper or other items, permanently.</p>
		<p>Used for joining, sealing, attaching or mending and can be used with a dispenser.</p>

(2)

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

Table 2

Equipment	Equipment name	Use
	<p>Protractor</p>	
	<p>T-square</p>	

(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

High density polyethylene (HDPE)

(1)

Information and communications technology (ICT)

Embedded computers

(1)

Presentation software

(1)

Control technology

Holographic card

(1)

Thermostat

(1)

Modern materials

Voice over internet protocol (VoIP)

(1)

(Total 6 marks)

Q3



4. Mass market paperback books belong to the printing and publishing, paper and board sector.

(a) (i) Name **one** other product from this sector, apart from a paperback book, that utilises, in its manufacture, information and communications technology and a modern material.

..... (1)

(ii) Explain the purpose of the product.

.....
.....
..... (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.

.....
.....
..... (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 characteristics of the product.

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

(Total 9 marks)

Q4



5. Computer-aided design (CAD) and communications technology are used by manufacturers of printing and publishing, paper and board products.

(a) (i) Give **two** examples of **how** CAD is used by a manufacturer.

Example 1

Example 2

(2)

(ii) Using an example from 5(a)(i), explain **one** benefit to the **manufacturer** of using CAD.

.....

.....

.....

(2)

(b) (i) Give **two** examples of a communications technology as used by a manufacturer.

Example 1

Example 2

(2)

(ii) Using an example from 5(b)(i), explain **one** benefit to the **manufacturer** of using communications technology.

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.....

.....

(2)

(Total 8 marks)

Q5



6. (a) Smart materials are used in some printing and publishing, paper and board products.

Explain the term 'smart material'.

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.....
.....

(2)

(b) Computer-aided manufacture (CAM) is used by manufacturers of printing and publishing, paper and board products.

Explain **three** benefits to a manufacturer of using CAM.

Benefit 1

.....

(2)

Benefit 2

.....

(2)

Benefit 3

.....

(2)

(Total 8 marks)

Q6



7. (a) Control technology is an essential feature in printing and publishing, paper and board product manufacture.

Explain the impact of control technology on safety when manufacturing.

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.....

(2)

(b) Handling information and data is an essential feature of printing and publishing, paper and board manufacturers.

Explain how the use of information and data handling systems benefit the manufacturer, when marketing products.

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(2)

(Total 4 marks)

Q7

TOTAL FOR SECTION A: 45 MARKS



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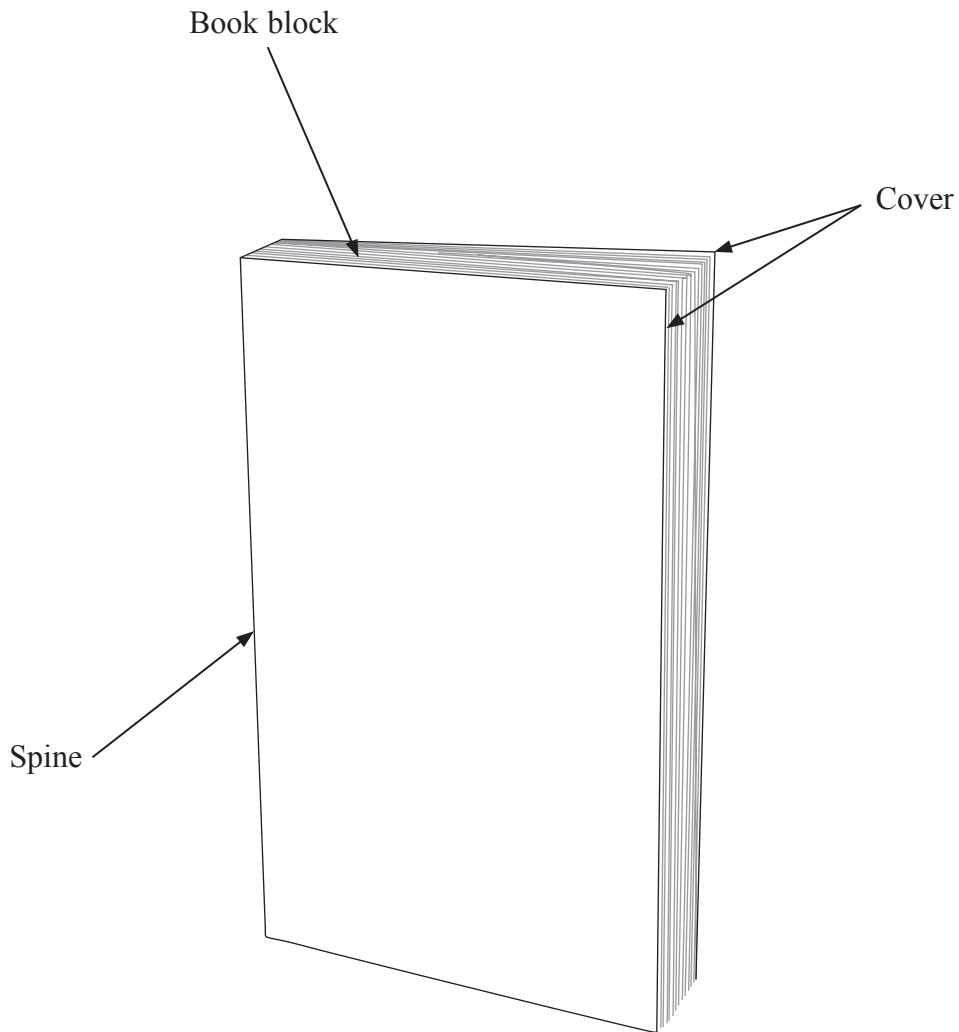
TURN OVER FOR SECTION B



SECTION B

Answer ALL questions in this section with reference to the manufacture of mass produced, mass market paperback books. Write your answers in the spaces provided.

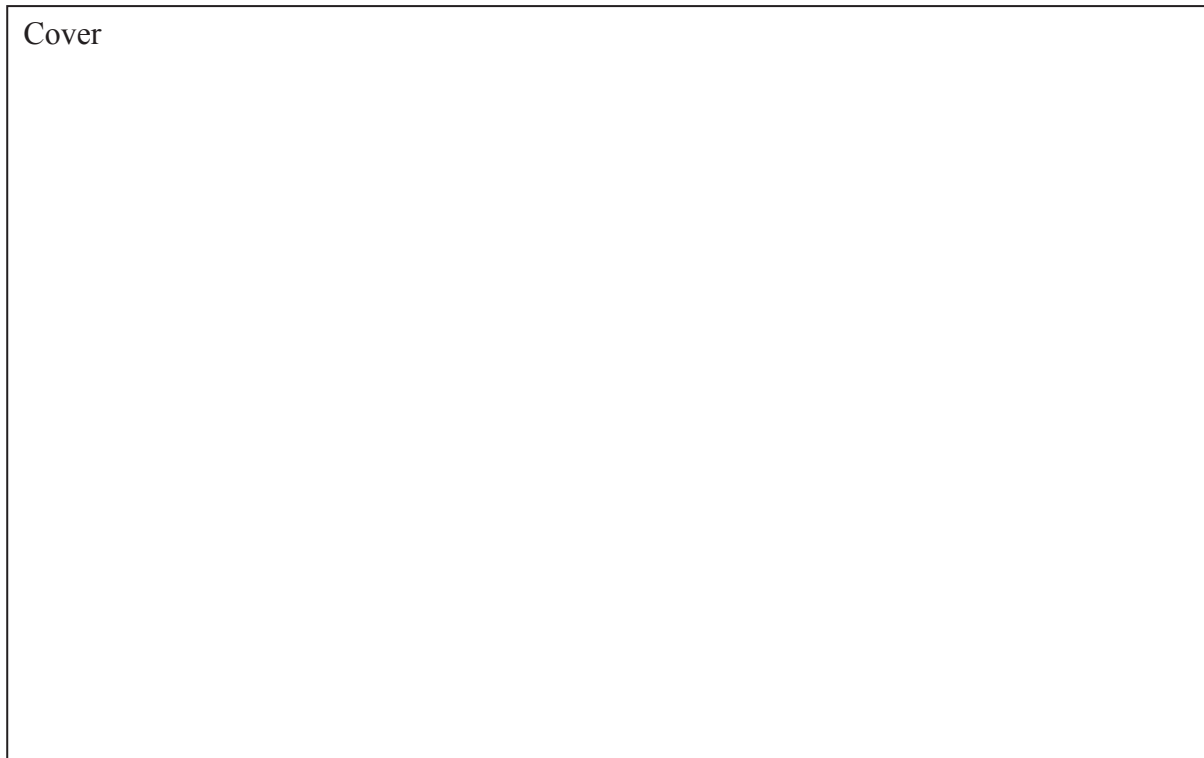
The diagram below shows a mass market paperback book.



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

(a) the function of the cover

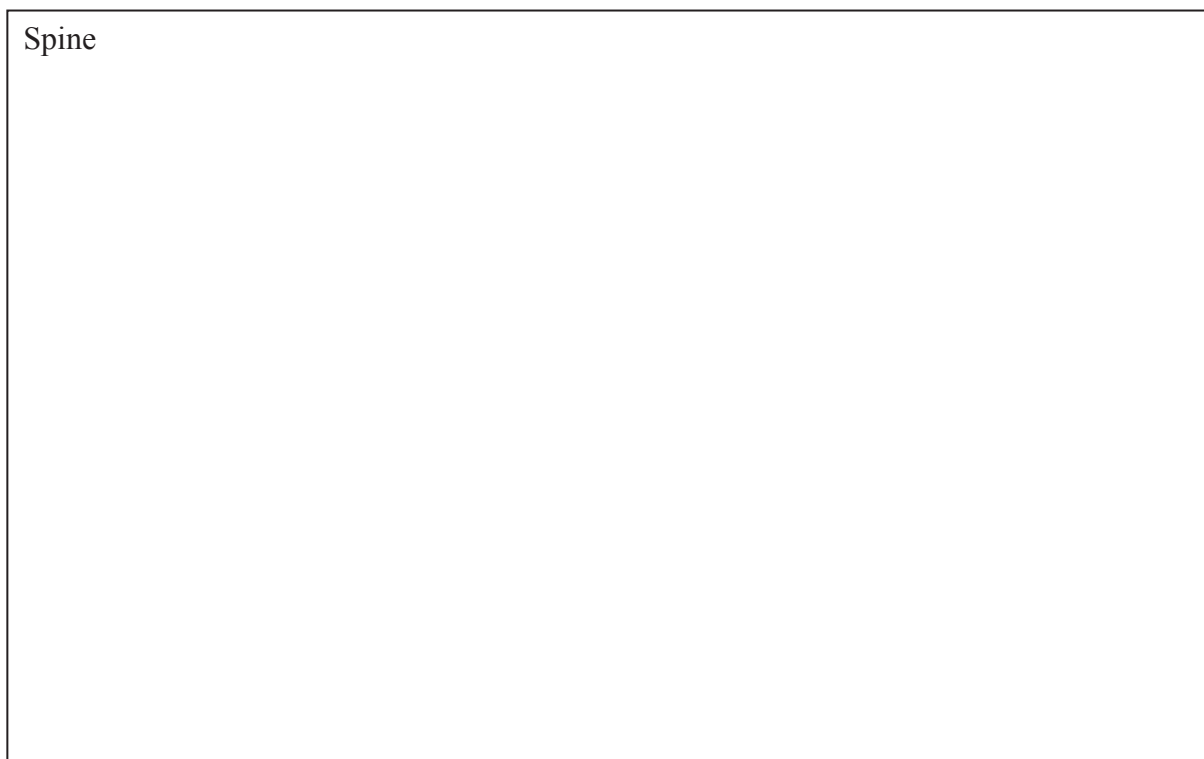
Cover



(3)

(b) the function of the spine.

Spine



(3)

(Total 6 marks)

Q8



9. (a) The following table indicates some of the main stages in manufacturing mass market paperback books.

(i) Complete the table below by giving the **two** missing stages in manufacturing mass market paperback books.

Stages in manufacturing	
1	Design
2	Marketing
3	
4	
5	Production
6	Assembly and Finishing
7	Packaging and Dispatch

(2)

(ii) State the stage in manufacturing where the mass market paperback books are delivered to **retailers**.

Stage

(1)

(b) Describe the following **two** stages in the manufacture of mass market paperback books.

(i) Design

.....

.....

.....

.....

(3)

(ii) Production

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(3)

(Total 9 marks)

Q9



10. (a) Name a specific adhesive commonly used to glue the book block to the spine.

..... (1)

(b) Web-fed offset lithography is used to print onto the surface of the mass market paperback book cover.

(i) State **three** processes, other than gluing or web-fed offset lithography printing, used during the making of mass market paperback books.

Process 1

Process 2

Process 3

(3)

(ii) Explain why web-fed offset lithography is a suitable process for printing the cover of a mass market paperback book.

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(3)

(c) Explain how the use of modern materials has made mass market paperback books appeal to the **consumer**.

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(3)

(Total 10 marks)

Q10

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11. (a) Describe **two** quality control procedures used at the production stage when manufacturing mass market paperback books.

(i) Quality control procedure 1

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(2)

(ii) Quality control procedure 2

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(2)

(b) Explain **one** benefit of applying each quality control procedure, described in 11(a), to the **manufacturer**.

(i) Benefit of procedure 1

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.....
(2)

(ii) Benefit of procedure 2

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

(c) Explain **one** benefit of applying each quality control procedure, described in 11(a), to the **retailer**.

(i) Benefit of procedure 1

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.....
(2)

(ii) Benefit of procedure 2

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

(Total 12 marks)

Q11

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12. The utilisation of modern technology in the manufacture of mass market paperback books has brought changes.

(a) (i) State **one** change the use of modern technology has had on the workforce.

..... (1)

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

Effect 1 (2)

Effect 2 (2)

(b) State **one** change the use of modern technology has had on the working environment.

..... (1)

(c) Explain **two** benefits the use of modern technology has had on the global environment.

Benefit 1 (2)

Benefit 2 (2)

(Total 10 marks)

Q12

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TURN OVER FOR QUESTIONS 13 AND 14



13. Modern materials are used in the manufacture of mass market paperback books.

Explain how the use of modern materials has impacted on development and final product costs.

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(Total 4 marks)

Q13

14. Manufacturing mass market paperback books uses energy. Modern printing and publishing processes operate more efficiently than traditional processes.

Explain why the use of modern printing and publishing processes may lead to **increased** energy consumption.

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(Total 4 marks)

Q14

TOTAL FOR SECTION B: 55 MARKS
TOTAL FOR PAPER: 100 MARKS

END

