

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
TOTAL	



General Certificate of Education
Advanced Subsidiary Examination
January 2011

Design and Technology: TEXT1 Product Design (Textiles)

Unit 1 Materials, Components and Application

Thursday 20 January 2011 9.00 am to 11.00 am

For this paper you must have:

- normal writing and drawing instruments.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen. Use pencil only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions in Section A.
- Answer **one** question from Section B, **either** Question 8 **or** Question 9.
- Answer the Question in Section C.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- There are 20 marks for Section A, 20 marks for Section B and 40 marks for Section C.

Advice

- Illustrate your answers with sketches and/or diagrams wherever you feel it is appropriate.
- You are advised to spend approximately 30 minutes on Section A, 30 minutes on Section B and one hour on Section C.



J A N 1 1 T E X T 0 1

Section A

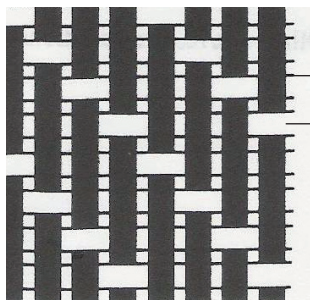
Answer **all** the questions in this section.

1 Study the diagram of fabric construction shown below.

1 (a) Name the method of construction used to make the fabric shown.

.....
(1 mark)

1 (b) Label the diagram as indicated below.



(i).....

(ii).....

(2 marks)

1 (c) Give the name of **one** fabric made using this construction method.

.....
(1 mark)

4

2 Place **each** of the fibres listed below in the correct box of the table.
You should use each fibre once only.

Trevira® mohair polyamide Coolmax® ramie Tencel®

Natural cellulose	Natural protein	Regenerated	Synthetic

(6 marks)

6



3 Give **one** example of a *fancy yarn*.

..... (1 mark)

1

4 Give **three** reasons why a jacket might be lined.

1.....

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2.....

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3.....

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(3 marks)

3

5 Is Gore-Tex® a smart material?
Explain your answer.

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.....

(2 marks)

2

Turn over for the next question

Turn over ▶



6 Explain how an *electrostatic charge* develops in some textile materials.

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(2 marks)

2

7 Briefly describe **two** different quality control checks for sewing machine stitches used to join seams.

1.....
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2.....
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(2 marks)

2



8 (b) (i) The label shown below was attached to the cotton towelling fabric.
Explain what it tells the consumer.



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(2 marks)

8 (b) (ii) Explain the reasons why a manufacturer would use a polyester thread when sewing the cotton towelling dressing gowns.

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(3 marks)

8 (c) The designer has the following fabric specification for a new range of dressing gowns aimed at the luxury end of the market.

The fabric must:

- feel comfortable against the skin
- be easy to launder
- have a luxurious appearance
- be reasonably hardwearing.

Compare and contrast the suitability of the polyester satin fabric and the polyester fleece fabric against the specification points given above.



Turn over for the next question

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ANSWER IN THE SPACES PROVIDED**

Turn over ▶



Section C

Answer this question.

10 The photograph below shows a sports T-shirt.



This sports T-shirt is marketed as being:
'soft on the skin, breathable, quick drying and suitable for active sports'.

The fibre content of the sports T-shirt is:

- 36% cotton
- 29% polyester
- 27% lyocell
- 8% elastane.

10 (a) Analyse how the fibre content of the sports T-shirt supports the claims made about its performance.

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10 (b) The fabric is constructed using a weft knit.

10 (b) (i) Describe the structure of a weft knit. You may use a diagram.

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(3 marks)

10 (b) (ii) Explain why the weft knit construction is appropriate for active sportswear garments.

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(3 marks)



10 (d) The sports T-shirts are packaged by rolling them up and wrapping them with a fabric band as shown in the pictures below.

The sports T-shirt packaged ready for sale



The fabric band



Evaluate this method of presenting them to potential buyers.

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(4 marks)



10 (f) The T-shirt is part of a range of active sportswear garments sold as a distinctive brand in a specialist sportswear shop.

Explain the benefits of this method of retailing for the consumer.

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(4 marks)



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