

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	
11	
12	
TOTAL	



General Certificate of Education
Advanced Subsidiary Examination
January 2010

Design and Technology: TEXT1 Product Design (Textiles)

Unit 1 Materials, Components and Application

Wednesday 20 January 2010 9.00 am to 11.00 am

For this paper you must have:

- normal writing and drawing instruments
- an Insert Sheet (enclosed).

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Use pencil and coloured pencils 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 10 **or** Question 11.
- Answer Question 12 in Section C.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- 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 each of Sections A and B and 40 marks for Section C.
- You will be marked on your ability to
 - use good English,
 - organise information clearly
 - use specialist vocabulary where appropriate.

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 0 T E X T 1 0 1

SECTION A

Answer **all** the questions in this section.
You are advised to spend about 30 minutes on this section.

1 (a) Explain what is meant by the term *regenerated fibres*.

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(2 marks)

1 (b) List **two** different regenerated fibres.

1

2

(2 marks)

2 Many modern fabrics are *laminated*.

Explain what is meant by a laminated fabric.

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(2 marks)

4

2



3 When developing pattern templates to make a product the designer will use a *basic block*.

What is meant by a basic block?

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(2 marks)

2

4 Give **two** reasons why *notches* are used on pattern templates.

1

2

(2 marks)

2

5 Identify **two** different safety standards related to the design of children’s clothes.

1

2

(2 marks)

2

Turn over ▶



6 Give **two** reasons why *piping* might be used on a cushion cover.

1

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2

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(2 marks)

2

7 What effect will *calendering* have on a fabric?

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(1 mark)

1

8 *Lycra* is a brand name for which type of fibre?



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(1 mark)

1



9 (a) Identify **two** different environmental problems associated with the growing of cotton fibres.

1

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2

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(2 marks)

9 (b) Identify **two** different environmental problems associated specifically with the finishing of fabrics.

1

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2

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(2 marks)

4

Turn over for the next question

Turn over ▶



SECTION B

Answer **one** question in this section, **either** Question 10 **or** Question 11.
You are advised to spend about 30 minutes on this section.

EITHER

10 Study the photographs of the table runner (**Figures 1 and 2**) on the Insert Sheet.

The main fabric used is 100% cotton. It is constructed with a satin weave.

10 (a) (i) Describe the structure of the satin weave. You may use a diagram.

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(3 marks)



10 (a) (ii) Critically evaluate the use of the satin weave cotton fabric for the table runner.

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(6 marks)

10 (b) Look at the photograph showing the decoration used on the table runner (**Figure 2**).

10 (b) (i) Analyse the ways in which stitches have been used in the decoration.

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(3 marks)

Question 10 continues on the next page

Turn over ▶



10 (b) (ii) Analyse the ways in which components have been used in the decoration.

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(3 marks)

10 (c) One of the trees is made from a spotted fabric. The spots were put on the fabric using *discharge printing*.

Explain how this method of printing achieved the spot pattern.

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(2 marks)

10 (d) The consumer is advised only to dry clean the table runner.

Explain the reasons for this care advice.

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(3 marks)

20



OR

11 Study the photographs of the hat (**Figures 3 and 4**) on the Insert Sheet.

The main fabric used for the hat is 100% wool constructed with a weft knit.

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

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(3 marks)

Turn over ▶



11 (a) (ii) Critically evaluate the use of the weft knitted wool fabric for the hat.

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(6 marks)

11 (b) The hat is partially lined with a polyester fleece fabric (**Figure 4**).

Explain the reasons for using this fabric to line the hat.

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(4 marks)



11 (c) Explain how the ties on the hat have been constructed.

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(2 marks)

11 (d) The hat has been hand knitted for commercial sale.

Compare and contrast the craft manufacture of this product with industrial batch manufacture of a similar product.

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(5 marks)

20

Turn over ▶



SECTION C

You must answer this question.
You are advised to spend about one hour on this section.

12 Study the photograph of the fashion top (**Figure 5**) on the Insert Sheet.

12 (a) The fabric is made from a blend containing 75% cotton and 25% silk. Silk fibres are produced in filament form and cotton fibres are in staple form.

Explain how these two types of fibre can be combined to make a fibre blend.

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(3 marks)

12 (b) The label shown below is attached to the fashion top.

The crinkled effect in this garment is not permanent. It is achieved during drying. To keep the crinkled look



Twist the garment until it curls up on itself.



Tuck in the ends and leave to dry naturally.

Once dry, store away twisted.



12 (b) (i) What qualities of the cotton and silk blend allow the fabric to keep its crinkled look?

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(3 marks)

12 (b) (ii) How could the fibre content of the fabric be modified to make the crinkle effect permanent?

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(3 marks)

Question 12 continues on the next page

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12 (c) Discuss the choice and use of interfacing in the manufacture of this top.

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(6 marks)

12 (d) (i) The top will be manufactured using a sub-assembly system.
Explain the reasons why sub-assembly systems are used in industrial
manufacture.

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(4 marks)



12 (d) (ii) Identify **two** different sections of the top which could be made as a sub-assembly.

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(2 marks)

12 (e) How can new technologies be used to ensure that manufacturers and retailers are able to respond quickly to changing consumer demand for this product?

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(6 marks)

Turn over ▶



12 (f) The fashion top is part of a limited edition collection.

Explain the reasons why many retailers have developed premium product ranges.

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(5 marks)



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