Centre Number			Candidate Number		
Surname					
Other Names					
Candidate Signature					



General Certificate of Education Advanced Subsidiary Examination January 2012

Design and Technology: Product Design (Textiles)

TEXT1

Unit 1 Materials, Components and Application

Tuesday 17 January 2012 9.30 am to 11.30 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 7 or Question 8.
- Answer 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.

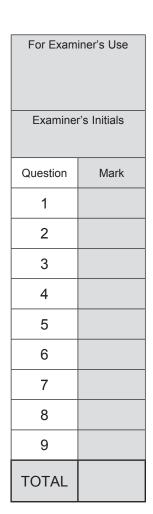
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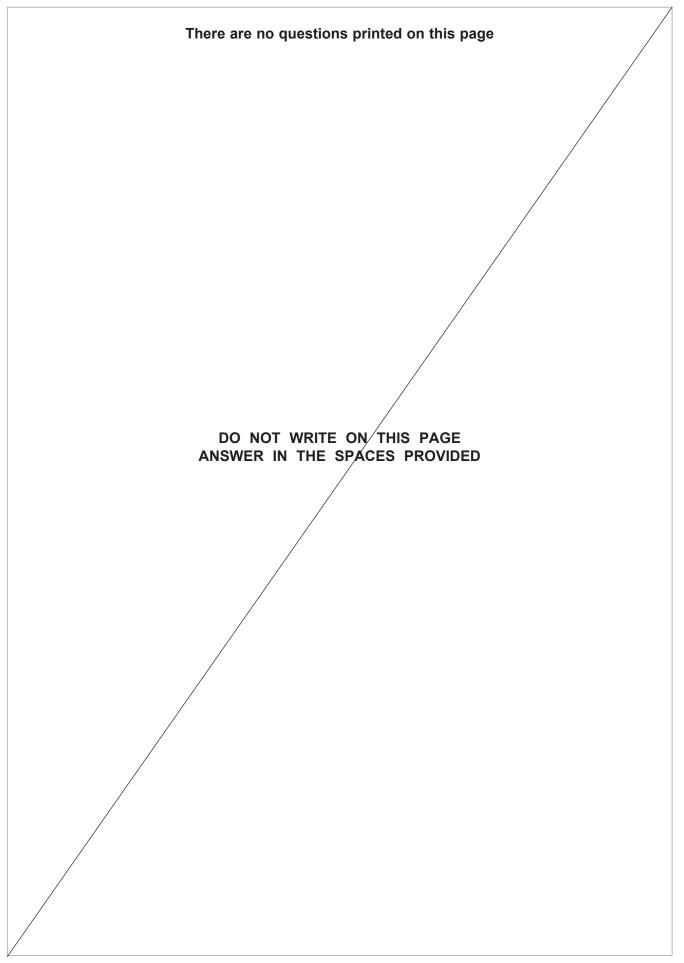
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- 20 marks are allocated to each of Sections A and B and 40 marks to Section C.
- You will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

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.









			Section	n A		
		Ansv	ver all question	s in this section.		
	Place each of t			he correct box of the	he table.	
	Viscose	Tactel®	Silk	Linen	Tencel®	Ramie
	Natural cellul	lose Na	tural protein	Regenerated	Synthe	tic
(a)	Explain what is	s meant by	light fastness i	n relation to textile	products.	(6 marks)
(a)	Explain what is	meant by	light fastness i	n relation to textile	products.	(6 marks)
(a) (b)				n relation to textile		(2 marks)
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	Give one exam	nple of a to	extile product w			(2 marks) ally important.
(b)	Give one exam	nple of a to	extile product w			(2 marks) ally important.

(1 mark)



3 (c)	What special qualities does the crimp give to the woollen fibre?	
	(2 marks)	4
4	What effect will a Proban® finish have on a fabric?	
	(1 mark)	1
5	How does copyright help designers of textile products?	
	(2 marks)	
6	Briefly describe two different ways in which a designer might show ideas for the colour of a textile product when putting together a presentation board.	
	(4 marks)	4



Section B

Answer either Question 7 or Question 8.

7 Many textile products are thrown away because they are not durable enough for their intended purpose.

The table below shows the results obtained when different products were subjected to wear over a period of time.

Product	Observation
Weft knitted socks made from a blend containing 60% cotton and 40% polyamide	The socks wore away at the heel, leaving a thin net-like mesh of polyamide fibre.
Polyester satin table covering	The fabric was quickly snagged but did not wear into a hole.
Seat covers made from woven acrylic yarn	The surface of the fabric was spoiled by pilling .
Cotton velvet trousers	Bald patches appeared before a hole developed.

7 (a)	Explain the reasons why the socks wore away at the heel, leaving a thin net-like mesh of polyamide fibre.
	(4 marks)



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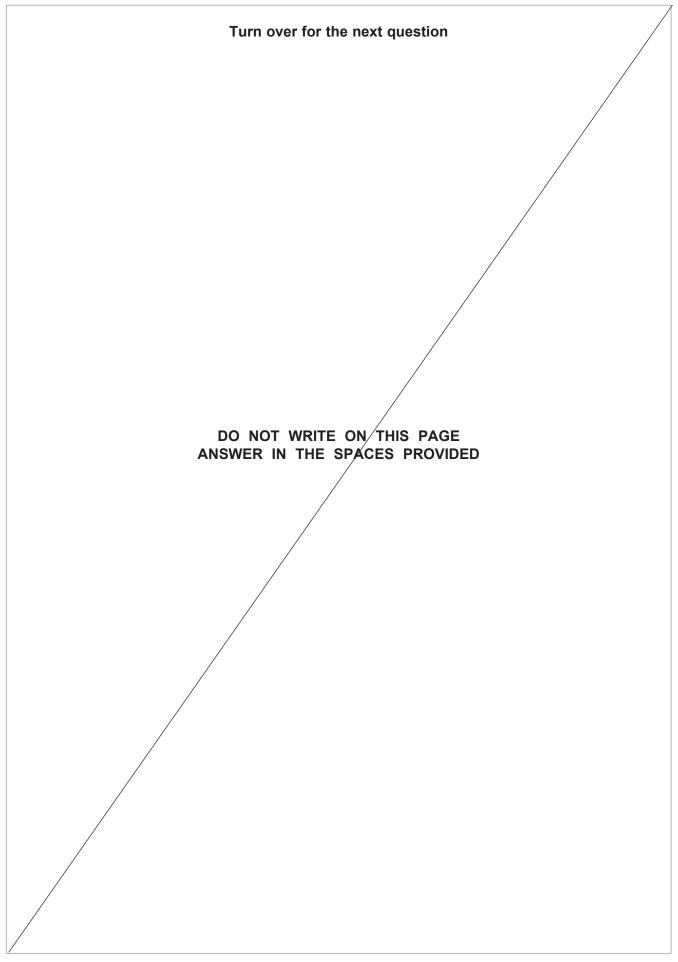
7 (d)	Explain the reasons why bald patches appeared before a hole developed in the cotton velvet trousers.
	(4 marks)

Question 7 continues on the next page



7 (e)	Giving examples, discuss the impact that the aftercare of textile products can have on their durability.
	(6 marks)







	Do not answer this question if you have answered Question 7.
8	Components are an important part of a textile product and need to be selected with care.
8 (a)	Discuss what a designer will need to consider when deciding on fastenings to use for a fashion product. Give examples to illustrate the points that you make.

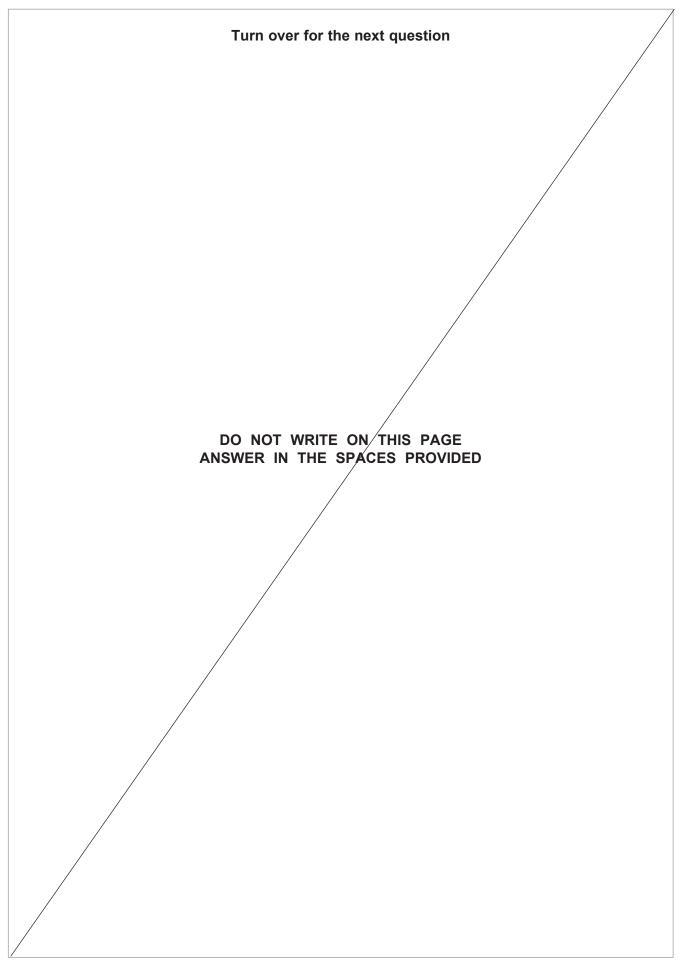


		(10 marks)
8 (b)	Explain the differences between ribbon and bias binding.	(10 marks)
0 (b)	Give an example of where each might be used.	
	Give an example of where each might be used.	
		(6 marks)



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is meant by an <i>underlining</i> and the reasons why it is sometimes used in ure of a textile product.	I
(4 mar	 ks) ,
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Section C

Answer this question.

9 The photograph below shows a shirt made from a woven checked cotton fabric.

Photograph 1 Front view of shirt



Photograph 2
Close-up to show pocket and sleeve





The fabric is constructed using a plain weave.
Explain how the checked pattern is achieved on the fabric. You may use a diagram.
Where colour is used in any diagrams, you should label which colours have been used.

(5 marks)

Question 9 continues on the next page



9 (b)	The fabric has a brushed finish.
	Evaluate the use of the brushed finish on the shirt fabric.
	(4 marks)



9 (c)	Explain what the manufacturer will need to consider when planning the fabric lay plan for a batch of these shirts in order to ensure a high quality appearance in the end product.
	(4 marks)

Question 9 continues on the next page





9 (d)	Identify three different places where interfacing would be needed on the shirt.
	Explain why interfacing is used in the places that you have identified.
	(4 marks)
9 (e)	Topstitching has been used on various parts of the shirt.
	Explain the reasons for this.
	(3 marks)



9 (f) (i)	Computer-aided manufacture (CAM) may be used in the construction of shirts.
	Explain how two specific parts of the shirt might have been made using computer controlled machinery in modern factories.
	(4 marks)

Question 9 continues on the next page

fashion products.



	(8 marks)
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9 (g)	Cotton fabrics can have a negative impact on the environment.
	Analyse the environmental issues involved in the production and care of cotton fabrics.



(8 marks)

40

END OF QUESTIONS



