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
June 2012

Design and Technology: Product Design (Textiles) TEXT1

Unit 1 Materials, Components and Application

Tuesday 22 May 2012 1.30 pm to 3.30 pm

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 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.
- 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.

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Section A

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

1 Give **three** reasons why silk fabrics are popular for special occasion dresses.

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(3 marks)

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2 Explain the importance of twist when spinning a yarn.

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(2 marks)

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3 Explain why static electricity affects some fabrics but not others.

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(3 marks)

3

4 Explain **two** different reasons why it is important for a designer to be aware of the needs of the target market when designing a new textile product.

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(4 marks)

4

5 Give **two** reasons for using piping on the edges of a cushion.

1 .....

2 .....

(2 marks)

2

6 State **two** important product groups in which the flammability of fabrics is controlled by law.

1 .....

2 .....

(2 marks)

2

7 Designers use moodboards and presentation boards in their work.

What are the differences between a moodboard and a presentation board?

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(4 marks)

4

Turn over for the next question

Section B

Answer **either** Question 8 **or** Question 9.

8 Many textile products need to be able to keep the consumer warm.

8 (a) Quilted fabrics are good insulators.

Describe the construction of a quilted fabric. You may use a diagram.

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(3 marks)

8 (b) Explain how a quilted fabric is able to keep a person warm.

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(2 marks)

8 (c) Polar fleece is a good insulator.

Describe the construction of polar fleece fabric. You may use a diagram.

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(3 marks)

Question 8 continues on the next page

8 (d) A manufacturer is making a range of winter sports tops and has a choice of using a quilted cotton fabric or a polyester polar fleece.

Critically compare the effectiveness of the two fabrics in relation to the intended use.

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(6 marks)

8 (e) Giving examples, explain how the fibre content and the type of yarn can help to make a fabric with good insulation qualities.

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(6 marks)

20

Do **not** answer this question if you have answered Question 8.

9 The photograph below shows a fashion top.

9 (a) The top is made from a weft knitted fabric.

Describe the construction of a weft knit. You may draw a diagram.

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(3 marks)

9 (b) The fibre content of the fabric is 73% acrylic, 27% polyamide.

Critically evaluate the suitability of this fabric for the top.

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Question 9(b) continues on the next page

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(8 marks)

9 (c) The top has a fashionable creased appearance.

Explain how this has been achieved on this fabric.

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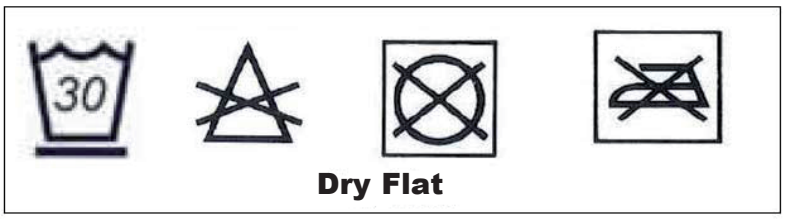
(3 marks)

9 (d) The care label shown below is attached to the top.



Analyse the reasons for this care advice in relation to the fabric used for the top.

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(6 marks)

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Turn over ▶

Section C

Answer this question.

10 For this question you need to refer to **Figures 1 – 6** on the insert sheet.

10 (a) In the space below, show how the templates (**Figures 1 and 2**) can be adapted to make a pattern for the fashion skirt (**Figures 3, 4, 5 and 6**).

(8 marks)

10 (b) Other details will need to be added to the final pattern. Explain why each of the following will be needed.

- *a seam allowance*
- *balance marks*
- *a straight grain line.*

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(6 marks)

Question 10 continues on the next page

10 (c) The skirt is to be made from a twill weave fabric.

Describe a twill weave. You may use a diagram.

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(3 marks)

10 (d) The fibre content of the twill woven fabric is 70% polyester, 30% viscose.

Critically evaluate the use of this fabric for the skirt.

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Question 10(d) continues on the next page

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(8 marks)

10 (e) Name **three** different components which will be needed to make this skirt.

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(3 marks)

10 (f) Quality control will be important to ensure that the skirt is made well.

Explain the quality control issues relating to **two** different areas of the skirt.

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(6 marks)

Question 10 continues on the next page

10 (g) The skirt will be commercially manufactured using a sub-assembly system.

Explain the reasons why sub-assembly systems are used in industrial manufacture.

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(6 marks)

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END OF QUESTIONS