

General Certificate of Education  
June 2007  
Advanced Subsidiary Examination



**DESIGN AND TECHNOLOGY: PRODUCT DESIGN PD1T**  
**(TEXTILES)**  
**Unit 1 Materials and Components**

Tuesday 5 June 2007 9.00 am to 10.30 am

**For this paper you must have:**

- a lined answer book (AB08) which is provided separately
- normal writing and drawing instruments
- a colour Insert Sheet (enclosed).

Time allowed: 1 hours 30 minutes

**Instructions**

- Use blue or black ink or ball-point pen. Use pencil and coloured pencils only for drawing.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is PD1T.
- Answer **three** questions.  
Answer Question 1 and **two** other questions.
- Use the Insert Sheet included to help you answer Question 1 and Question 2.

**Information**

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 100.  
Four of these marks will be awarded for using good English, organising information clearly and using specialist vocabulary where appropriate.
- There are 40 marks for Question 1 and 28 for each of Questions 2 to 4.

**Advice**

- Illustrate your answers with sketches and/or diagrams wherever you feel it is appropriate.

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Answer Question 1.

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1 Study the range of bedroom products (**Figure 1**) shown on the Insert Sheet. It includes the following items:

- a polyester/cotton pillowcase
- a quilted silk throw
- a velvet and satin cushion
- a polyester voile curtain.

(a) Explain how the various fabrics have been used to enhance the aesthetic appeal of the bedroom setting. (5 marks)

(b) The pillowcase is made from a polyester/cotton blend. The cotton fibre is produced in staple form whilst the polyester is produced in filament form.

Explain how these **two different** fibre types are blended into a yarn. (5 marks)

(c) (i) Evaluate the use of silk for the quilted throw. (6 marks)

(ii) Explain how the quilted construction adds warmth to the throw. (4 marks)

(d) Velvet is a directional pile fabric.

(i) What does the term *directional pile* mean? (3 marks)

(ii) What care will need to be taken when cutting out, sewing and pressing the velvet and satin cushion? (5 marks)

(e) Name **two different** components which could have been used on the velvet and satin cushion shown in **Figure 1**.

Explain why these components would be suitable. (2 × 2 marks)

(f) (i) Describe voile fabric. (3 marks)

(ii) Evaluate the suitability of polyester voile for a curtain. (5 marks)

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Answer any **two** questions from 2, 3 and 4.

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2 Study the photograph of the striped fabric (**Figure 2**) on the Insert Sheet.

- (a) (i) The fabric is made from cotton with a twill weave construction. Explain how twill weave is constructed. You may use a diagram. *(4 marks)*
- (ii) Explain how the striped pattern has been achieved on this fabric. *(3 marks)*
- (iii) How might the blotchy/faded appearance have been achieved on this fabric? *(2 marks)*
- (b) The fabric is used to make a range of fashion jeanswear.

The fabric specification for these garments includes the following points:

- the fabric must resist wear and tear
- the fabric must be easy to care for
- the fabric must be comfortable to wear.

Making reference to **both** the fibre content **and** the fabric construction, evaluate how far this fabric is successful in meeting each of the specification criteria given. *(3 × 4 marks)*

- (c) Using notes and diagrams, describe **two** ways in which a designer might use the striped pattern to add interest to garments. *(7 marks)*

**Turn over for the next question**

**Turn over ▶**

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- 3 There has been an increase in the number of modern and smart materials used for textile applications.
- (a) Describe each of the following modern textile materials and explain a typical application for each.
- (i) Gore-Tex<sup>®</sup> *(7 marks)*
- (ii) Polar fleece *(7 marks)*
- (iii) Tactel<sup>®</sup> microfibre *(7 marks)*
- (b) (i) What is meant by a 'smart' textile material? *(2 marks)*
- (ii) Describe a smart textile material and suggest a typical use. *(5 marks)*
- 4 Giving examples, explain the differences between:
- (a) selvedge and raw edge of fabric *(6 marks)*
- (b) warp knit and weft knit *(6 marks)*
- (c) felted and bonded fabrics *(6 marks)*
- (d) lining and interfacing *(6 marks)*
- (e) bias binding and ribbon. *(4 marks)*

**END OF QUESTIONS**

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(Textiles) Unit 1 Materials and Components**

**PD1T**



## **Insert**

**For use with Questions 1 and 2**

This photograph of a range of bedroom products cannot be re-produced on the website because of third party copyright restrictions

**Figure 2 Striped fabric**

