

General Certificate of Education  
June 2004  
Advanced Subsidiary Examination



**DESIGN AND TECHNOLOGY: PRODUCT DESIGN  
(TEXTILES)**

**PD1T**

**Unit 1 Materials and Components**

Wednesday 9 June 2004 Morning Session

**In addition to this paper you will require:**

- an unlined answer book (7024) which is provided separately;
- normal writing and drawing instruments.

Time allowed: 1 hour 30 minutes

**Instructions**

- Use blue or black ink or ball-point pen. Pencil and coloured pencils should be used 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 Question 1 and any **two** of Questions 2 to 4.

**Information**

- The maximum mark for this paper is 100.
- 40 marks are allocated to Question 1, 28 marks to each of Questions 2 to 4, and 4 marks overall for quality of written communication.
- Mark allocations are shown in brackets.
- This paper carries 30 per cent of the total marks for AS and 15 per cent for A Level.
- You are reminded of the need for good English and clear presentation. The quality of your written communication will be assessed across all questions.

**Advice**

- Your answers should be illustrated 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 photograph below.

**The photograph shows a Victorian style lounge with very pale painted walls.**

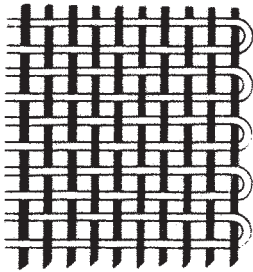
A large pale cream sofa is placed centrally in front of a large window which has a white gauzy covering. The sofa has a range of scatter cushions in mid blue/cream stripes, solid mid blue and solid cream. There is a tasselled blue/white striped throw on one arm of the sofa. In the left of the photograph is a solid dark blue sofa with a cream cushion. In the right of the photograph is a cream coloured armchair with a striped and checked cushion. It also has a heart-shaped decorative cushion with a red striped appliqué on a cream base. A lamp with a gathered blue and white striped shade sits on a side table between the pale cream sofa and chair on the right.

An oval coffee table in front of the sofa holds a collection of pebbles and driftwood and there is a model yacht on the mantel shelf.

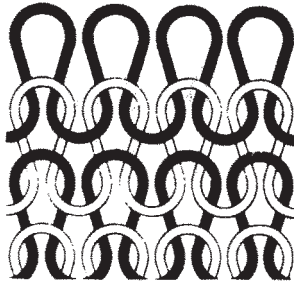
- (a) Explain how the designer has created interest with the fabrics. *(8 marks)*
- (b) (i) Describe, with reasons, the properties which will be needed in the sofa fabric. *(12 marks)*  
(ii) Name a fibre or fibre blend which would be suitable for the striped fabric. *(2 marks)*
- (c) (i) Explain the reasons for including piping on the sofa and cushions. *(6 marks)*  
(ii) Name and describe **two** other components needed for the cushions. *(6 marks)*
- (d) Describe the care that is needed when working with striped and checked fabrics like the ones shown. *(6 marks)*

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

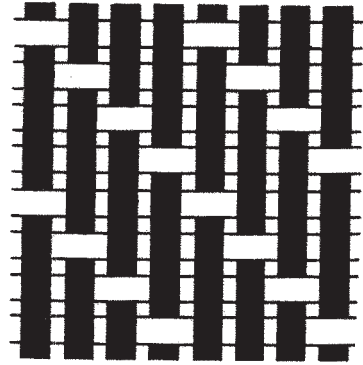
2 Study the three methods of fabric construction shown below.



**Fabric A**



**Fabric B**



**Fabric C**

- (a) (i) Name each method. *(3 marks)*
- (ii) Explain briefly how each fabric is constructed. *(3 × 3 marks)*
- (b) Explain how the fabric structure of **A** compares with the fabric structure of **B** in terms of each of the following:
- (i) ability to insulate, *(4 marks)*
- (ii) stability, *(4 marks)*
- (iii) care and maintenance. *(4 marks)*
- (c) Briefly describe **two** ways in which pattern can be introduced when producing **Fabric B**. *(2 × 2 marks)*

3 Polyester and cotton are probably the most popular fibres used in blends for home and fashion products.

- (a) Explain the reasons why these two fibres are so popular in blends. *(10 marks)*
- (b) (i) Polyester and cotton fibres are very different in their original form. Explain how they can be combined together in a yarn form. *(4 marks)*
- (ii) Different percentages of polyester and cotton are used for different applications. Give the percentages of polyester and cotton used in **two** different blends. Suggest, with reasons, an application for each of them. *(2 × 5 marks)*
- (c) Explain why polyester/cotton blends can be dangerous. *(4 marks)*

Turn over ►

- 4 A fabric used for fashion or furnishing often needs other fabrics used in combination with it to ensure a successful product.

Explain, using examples, the purposes of each of the following:

- (a) interfacing, *(10 marks)*
- (b) linings, *(10 marks)*
- (c) underlining. *(8 marks)*

**END OF QUESTIONS**

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