

General Certificate of Education  
June 2005  
Advanced Subsidiary Examination



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

Tuesday 7 June 2005 Morning Session

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

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

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.
- Use the Insert Sheet included to help you answer **Question 1**.

**Information**

- The maximum mark for this paper is 100.
- 40 marks are allocated to Question 1, 28 to each of Questions 2 to 4, and 4 marks overall are 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 Advanced 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**

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

---

Answer Question 1.

---

1 Study the photographs on the Insert Sheet. Answer the following questions.

- (a) Explain how the designer has used fabric to create interest in the different styles of pyjamas. *(5 marks)*
- (b) (i) Describe the structure of the jersey fabric used for **Style A** pyjama top. *(6 marks)*
- (ii) Describe the structure of the fabric used for **Style B** pyjama bottoms. *(6 marks)*
- (iii) Explain how these fabric structures help keep the wearer warm. *(4 marks)*
- (c) What type of thread would the manufacturer need to use for the stitching of these pyjamas?  
Explain this choice. *(5 marks)*
- (d) (i) Explain the advice you would expect to find on the care label about the laundering of these pyjamas. *(8 marks)*
- (ii) Both pairs of pyjamas will need to carry a flammability warning label. Explain why the labels are necessary in these cases. *(6 marks)*

---

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

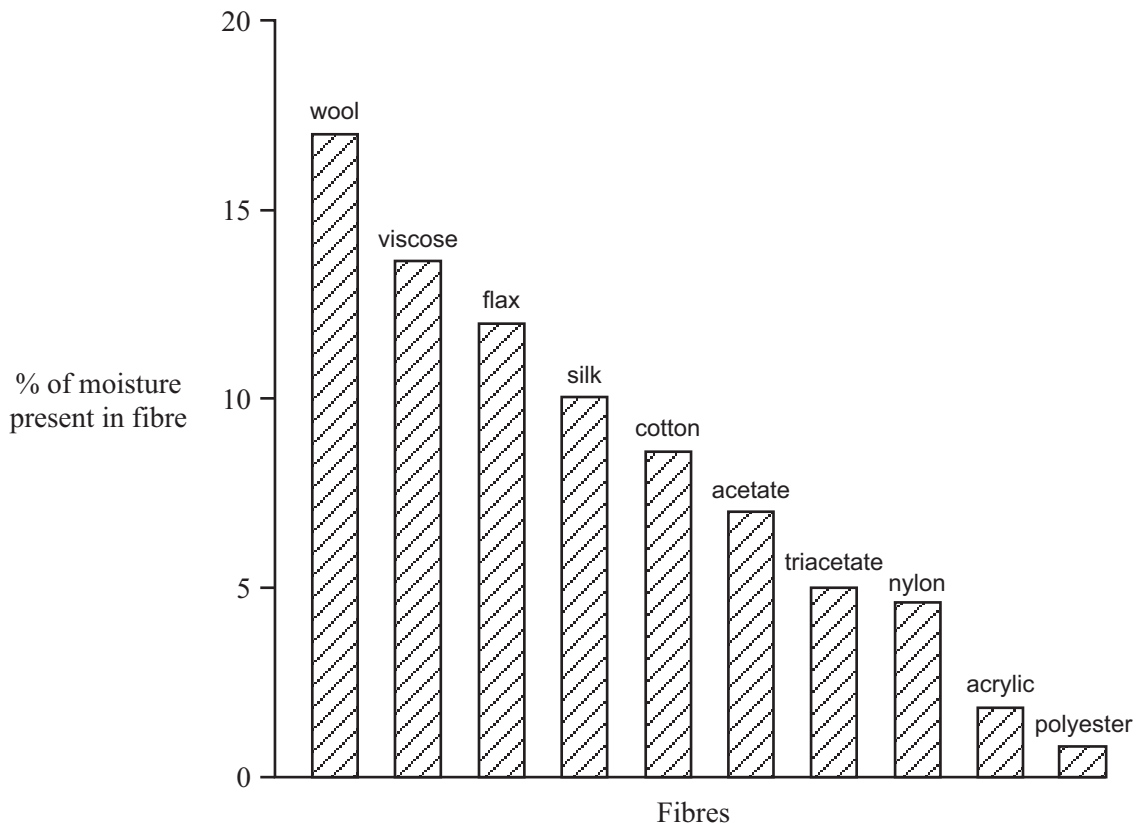
---

- 2 The style and function of a garment can be enhanced by the use of additional components.
- (a) Discuss the factors that a clothing designer will need to take into account when selecting fastenings for garments. *(8 marks)*
- (b) Compare and contrast the use of the components named for each of the following.
- (i) Magnetic stud or zip fastener on a bag. *(5 marks)*
  - (ii) Poppers or buttons and buttonholes on a duvet cover. *(5 marks)*
  - (iii) Elastic or petersham for the waist of trousers. *(5 marks)*
  - (iv) Satin binding or lace edging on a camisole top. *(5 marks)*
- 3 Most fabrics used for home and fashion products include more than one fibre.
- (a) Explain what is meant by:
- (i) a fibre blend; *(2 marks)*
  - (ii) a fibre mixture; *(2 marks)*
  - (iii) a laminated fabric. *(2 marks)*
- (b) (i) Giving examples, explain the reasons why fibre blends are so popular. *(12 marks)*
- (ii) Explain the reasons for laminating fabrics. *(10 marks)*

**TURN OVER FOR THE NEXT QUESTION**

**Turn over ►**

- 4 Study the bar chart showing the percentage of moisture present in the structure of various fibres under standard conditions.



- (a) Explain what is meant by *standard conditions* when testing moisture absorption of fibres. (3 marks)
- (b) Use the evidence from this chart to explain why:
- (i) viscose is used in disposable nappies; (4 marks)
  - (ii) polyester is often used for outdoor jackets; (4 marks)
  - (iii) static electricity builds up in synthetic fibres. (5 marks)
- (c) (i) Bath towels need to be very absorbent. Wool is the most absorbent fibre yet it is not used in the manufacture of towels. Explain why. (6 marks)
- (ii) Explain why cotton towelling is the usual choice for bath towels. (6 marks)

**END OF QUESTIONS**

**June 2005: GCE Design and Technology: Product Design  
Unit PD1T  
The photographs on this sheet are for use in answering  
Question 1**



**Style A Pyjamas**

Cotton jersey top.  
Printed woven cotton bottoms  
have adjustable elasticated  
waistband.



Close-up view of Style A pyjamas

Turn over ►



**Style B** Pyjamas

Polyester fleece top.  
The woven cotton bottoms are brushed for extra warmth and have an adjustable elasticated waistband.