

General Certificate of Education
January 2004
Advanced Subsidiary Examination



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

PD1T

Unit 1 Materials and Components

Thursday 8 January 2004 Morning Session

In addition to this paper you will require:

- a lined answer book (AB08) 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.

Answer Question 1.

- 1 Study the fashion illustration below.



Source: Clothing East Photograph Craig Fordham.

- (a) Explain how the designer has used the qualities of the velvet and the organza to complement each other in the outfit. (8 marks)
- (b) (i) What *fibres* are these fabrics commonly made from? (4 marks)
- (ii) Evaluate the suitability of the fibres and fabrics for the outfit shown. (8 marks)
- (c) Linings have been used in the jacket and the skirt.
Discuss the need for linings in an outfit of this type. (10 marks)
- (d) The velvet fabric can be difficult to work with.
Outline the problems which might arise when manufacturing this outfit. (10 marks)

TURN OVER FOR THE NEXT QUESTION

Turn over ►

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

2 Textiles have an important use for insulation purposes.

- (a) (i) Giving examples, explain how textile products can be used to prevent heat loss from interior spaces. (7 marks)
- (ii) Giving examples, explain how *clothing* can insulate the body from cold. (9 marks)
- (b) Explain how the *properties* of fibres, yarns and fabrics enable them to be good thermal insulators. Give a range of examples. (12 marks)

3 Components used for fashion and furnishing products need to be chosen carefully in order to be functional and to complement the fabrics used.

- (a) (i) Describe **three** different fastenings available to manufacturers. (3 × 3 marks)
- (ii) Sketch a product showing a different use for *each* of the fastenings selected in part (i). Explain why you consider them to be appropriate for the product. (3 × 3 marks)
- (b) Explain what designers and manufacturers will need to take into consideration when selecting fastenings for a range of products. Give examples to support the points you make. (10 marks)

4 Fibres can be classified in the following groups:

- natural
 - regenerated
 - synthetic.
- (a) Make a table and place *each* of the fibres listed below in their correct group:
nylon, cotton, Tencel, Lycra, wool, viscose, polyester, Tactel, silk, Trevira. (10 marks)
- (b) Compare the properties of viscose with those of polyester with reference to each of the following:
- strength
 - absorbency
 - crease resistance
 - flammability
- (4 × 3 marks)
- (c) Why are polyester and viscose often blended to make fabrics? (6 marks)

END OF QUESTIONS