

General Certificate of Education  
Summer 2003  
Advanced Subsidiary Level Examination



**DESIGN & TECHNOLOGY: PRODUCT DESIGN**      **5551**  
**(3D DESIGN)**  
**Unit 3 Design and Market Influences (PD3D)**

Tuesday 3 June 2003 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 only be used 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 PD3D.
- Answer **both** questions.
- Two sheets of A3 paper are provided for use with Question 2. *No further sheets are to be used.*

**Information**

- The maximum mark for this paper is 100 marks, 4 marks of which 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 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 **both** questions.

**You should spend about 20 minutes on Question 1 and about 1 hour 10 minutes on Question 2.**

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- 1 (a) Explain how a designer might use anthropometric data in the design of bench seating for a shopping area.  
(10 marks)
- (b) Explain how a designer may take into account the needs of the disabled in the design of a *public telephone*.  
(10 marks)

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Use the two separate A3 sheets provided to answer Question 2 where appropriate.

Clearly indicate the sections of the question you answer on the sheets.

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2 You have been asked to produce a design for a waste bin which would be suitable for a modern city centre environment. You should consider the following features:

- Resistance to vandalism;
- Ease of cleaning and removal of waste;
- A graphic image to encourage people to use the bin.

(a) You should produce a range of annotated initial ideas.

(b) Develop a final solution for the bin to include the following:

- Details of construction;
- Details of materials and components;
- Appropriate dimensions;
- A final presentation drawing including the graphic image required to encourage the use of the bin.

Marks will be awarded for:

Quality of communication *(10 marks)*

Range of ideas *(15 marks)*

Originality/innovation of product *(15 marks)*

Appropriateness of materials and components *(10 marks)*

Methods of construction *(10 marks)*

Dimensions and dimensioning *(6 marks)*

Appropriate graphic image *(5 marks)*

Suitability of finish *(5 marks)*

*(Total 76 marks)*

**END OF QUESTIONS**