



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCE

Design and Technology

Product Design

Unit PD6T

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Textiles (PD6T)

Quality of Written Communication

The following marks are allocated to the quality of the candidate's written communication. Make a separate assessment of the candidate's overall ability as demonstrated across the paper using the criteria given below.

<i>Performance Criteria</i>	<i>Marks</i>
The candidate will express complex ideas extremely clearly and fluently. Sentences and paragraphs will follow on from one another smoothly and logically. Arguments will be consistently relevant and well structured. There will be few, if any, errors of grammar, punctuation and spelling.	4
The candidate will express moderately complex ideas clearly and reasonably fluently, through well-lined sentences and paragraphs. Arguments will be generally relevant and well structured. There may be occasional errors of grammar, punctuation and spelling.	3
The candidate will express straightforward ideas clearly, if not always fluently. Sentences and paragraphs may not always be well connected. Arguments may sometimes stray from the point or be weakly presented. There may be some errors of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas.	2
The candidate will express simple ideas clearly, but may be imprecise and awkward in dealing with complex or subtle concepts. Arguments may be of doubtful relevance or obscurely presented. Errors in grammar, punctuation and spelling may be noticeable and intrusive, suggesting weaknesses in these areas.	1

NB This mark scheme is intended as a guide to the type of answer expected but is not intended to be exhaustive or prescriptive. If candidates offer other answers that are equally valid **they must be given full credit.**

Many responses at this level are assessed according to the **quality** of the work rather than the number of points included. The following level descriptors are intended to be a guide when assessing the quality of a candidate's response.

The candidate has a basic but possibly confused grasp of the issues.
Few correct examples are given to illustrate points made. This candidate does not have a clear idea of what s/he is writing about.

(low mark range)

The candidate has some knowledge but there will be less clarity of understanding.
Some correct examples given to illustrate points made. This candidate knows what s/he is writing about but is confused in part.

(mid mark range)

The candidate has a thorough understanding of the issues and has provided relevant examples to support the knowledge shown. This candidate knows what s/he is writing about and provides clear evidence of understanding..

(high mark range)

Section A: MATERIALS AND COMPONENTS

Question 1

Inorganic fibres is a classification of man- made fibres from glass, carbon and metal. Examples of these fibres used in textiles applications include: metallic strips (knitted, woven or non woven) for fashion fabrics, a popular brand is Lurex, effects can be both aesthetic and functional and can include health and safety benefits. Glass fibres can produce a woven material, which is then coated with silicon to make it pliable. This can be used for architectural structures, lighting and the aerospace industry for example. Carbon fibres have been produced over the last 20 years producing high strength but very lightweight material. Can be used in upholstery textiles for public transport and aircraft. They provide very good fire protection. Reference to specific inorganic fibres is expected in answers given.

Marks awarded as follows:

- | | |
|---|-----------------------|
| Limited explanation with few examples given. | (1 – 8 marks) |
| A more detailed explanation is given but answer focuses on examples of limited applications | (9 – 16 marks) |
| An in-depth answer should make reference to examples from at least three of the fibres mentioned above. | (17 –24 marks) |
| | Total 24 marks |

Question 2

Advances in textile technology have affected methods of fibre and yarn formation and fabric construction.

- | | |
|--|---------------|
| (a) Description of two methods of fibre or yarn formation which incorporate new technological advancement. | (2 x 6 marks) |
| (b) Description of two methods of fabric construction which incorporate new technological advancement. | (2 x 6 marks) |

Differentiation is through quality of answer:

References could be made to the following: micro encapsulation, micro fibre technology, membrane systems, nano-fibres, bio fibres, reflective textiles. Brand names such as Tactel or Cordura can be included in answer providing reference to generic source is given.

Marks awarded as follows:

- | | |
|--|-----------------------|
| Limited response with little detail given | (1 – 2 marks) |
| Candidate illustrates a reasonable understanding of new advances, some examples given. | (3 - 4 marks) |
| A detailed response is given with a range of examples. | (5 - 6 marks) |
| | Total 24 marks |

Section B: DESIGN AND MARKET INFLUENCESQuestion 1

- (a) A typical clothing product life cycle clearly should be explained. From introduction of a new product through a period of growth to a mature stage where the product will have mass appeal and is the longest part of the cycle to the final stage of decline and falling sales and profits.
- Limited responses with little detail included. (1 – 2 marks)
- A reasonable description of chosen life cycle. (3 – 5 marks)
- A detailed description of a chosen life cycle, possible use of diagrams. Reference to scale is included. (6 – 8 marks) (8 marks)
- (b) Different sectors of the clothing market have different variations in patterns of cycles, in particular a Fad cycle compared to a Classic cycle. An explanation of these differences would be expected in the answer given. Diagrams may be used.
- Limited responses with little detail, lack of understanding of different variations of cycles included in answer. (1 – 2 marks)
- A reasonable description of the cycles from different sectors, some lack of detail. (3 – 5 marks)
- A detailed description of the cycles from different sectors of the clothing market. Differences are clearly explained, possible use of diagrams. (6 – 8 marks) (8 marks)
- (c) Objectives of an advertising campaign for clothing products clearly listed. Candidates would be expected to give a number of objectives. These could include: To increase market share, to increase expenditure by existing customers, to increase store traffic, to increase sales of specific products, to create brand awareness, to reassure customers, to launch a new product, to encourage customers to trade up from one garment or service to a more expensive one, to reinforce the corporate identity. A time scale for these objectives would normally be given.
- Limited responses with few objectives listed. (1 – 2 marks)
- Several objectives are included but there is a lack of depth to answer. (3 – 5 marks)

A detailed answer given, a number of objectives are clearly outlined and some awareness of time scale would be expected in the answer. (6 – 8 marks)

(8 marks)

Total 24 marksQuestion 2

- (a) A response to the question regarding the importance of brand awareness within the textiles industry should be given.

A brand is a name or trademark which identifies a product, it can reflect quality, value or a particular image.

Limited responses with a lack of understanding of brand awareness. (1 – 2 marks)

A reasonable response but there is a lack of detail. (3 – 5 marks)

The term ‘brand awareness’ is clearly defined and a detailed description of the importance of brand awareness is given, some specific examples would be expected in the answer given. (6 – 8 marks) (8 marks)

- (b) Several advertising and promotional campaigns are described and detail of the designers style and image are given. This could include shows, point of sales displays, fliers and reference to advertising.

Answers must be clear and specific; marks will not be awarded for general comments.

Limited responses with vague references and little detail included. (1 – 5 marks)

A reasonable description of the campaigns of a chosen designer, although some lack of clarity. (6 - 10 marks)

A detailed description of the campaigns of a chosen designer, detail is specific regarding style and image. (11 – 16 marks) (16 marks)

Total 24 marks

Section C: PROCESSES AND MANUFACTURE**Question 1**

The statement QUALITY ASSURANCE requires explanation. Students should make reference to the management system set up by companies particularly in relation to manufacture to ensure that the products they produce conform to agreed standards of quality expected by customers and consumers.

Quality Control is a part of this system and is mainly concerned with inspections during the production process. Quality assurance relates to quality being manufactured into a product and not purely by inspecting for quality. It includes ‘Total Quality Control’ which hinges on creating an awareness of quality achievement through the whole business. That everyone in a company can influence, through aspects of their jobs, the finished quality of products produced by that company. The need for sustained quality performance involves all relevant areas of the organisation and its suppliers.

Students should make Reference to British standards, and to the agreement between manufacturers, suppliers and commercial customers of fabric, garment, manufacturing and production specifications in order to monitor standards of manufacture. In the importance of ensuring that equipment works efficiently or is replaced and that staff are trained correctly. An understanding of the commercial and cost implications will be expected in answers given.

A detailed explanation is required of advantages for manufacturers to conform to quality systems, particularly in the satisfaction customers and the confidence in products by consumers. The use of further swing ticketing to aid further reassurance could be referred to. A lack of conformance and the disadvantages in non-implementation of quality assurance should be clearly explained.

Differentiation will be through depth and clarity of response.

Limited response, some reference to quality control but little clarity in explanation given. (1 – 7 marks)

Some explanation given but lack of more detailed information. Some reference to advantages for manufacturers. (8 – 14 marks)

A detailed description of a Quality Assurance system with advantages for the manufacturers. (15 – 24 marks)

Total 24 marks

Question 2

- (a) Two commercial printing methods will be described in detail. These could be from the following:

Roller, flat silk screen, transfer/sublimation method, Ink jet printing linked to a computer. Each process will be explained, diagrams could be used.

Reference to scale and speed of production, the flexibility of the printing method would be expected within the answer given.

Limited response with little detail included. (1-2 marks)

Detailed description of commercial printing methods, possible use of diagrams. Reference to scale and speed of production and flexibility of method is included (3-5 marks) (2 x 5 marks)

- (b) Examples of two or more products resulting from printing methods must be given. Clear justification for each chosen print method must be given. (1-2 marks)

Two or more products mentioned but limited information regarding chosen print method (3- 4 marks)

A detailed description of two or more products from chosen print methods with clear justification of choice of method (2 x 4 marks)

- (c) Appropriate finishes that could be applied to printed textile material to increase end uses should be clearly explained.

Examples could include pleating, brushing, stain repellent, anti-static, calendering

Few finishes are given in the answer and little reference or detail is given regarding increased end use. (1-3 marks)

A detailed description of a several finishes that could be applied and explanations of end uses are clearly given. (4-6 marks)

(6 marks)
Total 24 marks

Question Total	96 marks
Quality of Written Communication	4 marks
Paper Total	100 marks