



General Certificate of Education

**Design and Technology:
Product Design (Textiles)**

1561

Specification

TEXT1

Report on the Examination

2010 examination - January series

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General Comments

The written paper followed a similar pattern to previous papers for this specification and candidates appeared to have been familiar with what was expected. The overall standard of achievement was lower than expected suggesting that a number of candidates had a lack of the detailed specification knowledge required to answer the questions fully. Candidates would be advised to become familiar with basic classification of fibres, the main methods of producing yarns and fabrics, and a range of common fabric finishes.

The majority of scripts were well presented and legible and sketches and diagrams often showed extra information which was given credit as appropriate.

Of the two optional questions, Question 11 was slightly more popular although both questions produced responses at a similar level.

Section A

This is a compulsory section of the paper and candidates are required to answer a number of short questions testing basic knowledge of textile materials and processes. This section of the paper produced a mixed standard of responses, although the overall standard was lower than expected.

- 1(a) Less than 25% of the candidates scored full marks on this question as they were unable to explain what is meant by *regenerated fibres*. Many thought that they are recycled fibres.
- 1(b) Candidates responded better to this question. When candidates give *cotton* and *polyester* as examples of regenerated fibres, it suggests that they are unfamiliar with basic specification content.
- 2 Many candidates confused laminated fabrics with coated fabrics and the vast majority erroneously described PVC coated fabrics.
- 3 Most candidates were familiar with the concept of basic pattern templates and the way in which they are used by designers.
- 4 Most candidates understood that notches are used to help identify where different parts of a product should be joined, however there was some repetition and confusion in answers.
- 5 Many confused and inaccurate responses resulted in low scores for this question. Candidates need to be more familiar with legislation relating to the design of children's clothes in order that they can make accurate statements. Common errors made in their answers related to sizing, use of dyes and finishes, and the mistaken belief that all children's clothes must be flame retardant.
- 6 Candidates were knowledgeable about the reasons for using piping on a cushion cover and many scored well on this part. There was, however, some confusion as a significant number thought that piping prevents fraying of fabric edges.
- 7 Candidates were not familiar with this basic finish.
- 8 Fewer than 60% of candidates recognised Lycra as an elastane fibre.
- 9(a) Questions about the environmental issues relating to the growing of cotton have appeared in past AS and GCSE papers, however candidates did not appear to be familiar with the topics. Candidates often lost marks because they referred to social and moral issues rather than those concerned with the environment.

- 9(b) Candidates answered this question but there were many very vague references to *dangerous chemicals and gases* and *pollution* rather than specific details relating to fabric finishes.

Section B

Candidates are required to answer one of the two questions in this section.

Question 10

- 10(a)(i) Responses were mixed and the question produced a good spread of marks. Many candidates described the twill weave rather than the satin weave, especially those using a diagram to show the structure. Many candidates did not clearly identify the warp and weft yarns and describe how the interlacing changes on consecutive rows.
- 10(a)(ii) When responding to this type of question, candidates should be aware that they need to consider fabric structure as well as fibre content, and that *critically evaluate* requires them to discuss the drawbacks as well as the positive points about the fabric. Many answers gave a detailed evaluation of either the satin weave or the cotton content, but many clearly knowledgeable candidates did not score high marks because they did not consider both aspects of the fabric. There was some confusion relating to the strength of the fabric and many seemed not to understand that, despite the high strength of cotton, the satin weave structure does not stand up to heavy use. The candidates did not make links between fibre content and fabric structure.
- 10(b) (i) Candidates appeared to be lacking knowledge of the accurate terminology, e.g. *plain stitch*, *appliqué stitch*, and made generalised statements such as *embroidery stitches are used for decoration*. It was expected that candidates would give consider how different stitches had been used to add colour, hold different fabrics together, decorate and add colour to the table runner. Very few candidates failed to score at least one mark.
- 10(b) (ii) This question was slightly less well answered than part (i) as many considered the different fabrics to be components. There is generally much confusion about what is meant by *components* and this type of question always catches out a significant number of candidates. The more aware looked at how ribbon, threads, pom-poms and other trims added to the texture and decoration, and many referred to the way in which they developed the theme of the decoration.
- 10(c) There were many attempts to describe how spots might be printed on to the fabric, including some very inventive suggestions, but few understood the principle of discharge printing.
- 10(d) This question was reasonably well answered with many candidates referring to the mix of fabrics and components. Marks tended to be lost because of vague terminology or inaccurate references to shrinkage.

Question 11

- 11(a)(i) Candidates' understanding of the weft knit structure is much improved. Many responded through a diagram, one mark often lost because the wales and courses were not labelled. There are still some who confuse knit and woven structures, and a small percentage of candidates did not score on this question.
- 11(a)(ii) As with question 10(a)(ii), candidates gave a detailed evaluation of either the weft knit or the wool content, but many clearly knowledgeable candidates did not score high marks because they did not consider both aspects of the fabric. Candidates are showing better understanding of the qualities of wool fibres and were able to relate these to the intended use.

- 11(b) The reasons for lining the hat were well considered but many missed the focus of the question which was about the reasons for using the polyester fabric, not why the hat was lined. Few recognised that the fleece fabric would provide some stretch to match that of the weft knit, although many referred to the insulating properties.
- 11(c) The majority of candidates scored well on this question. Where a mark was lost, it was usually because candidates did not explain that the plaits were made from the same woollen yarns as used for the main part of the hat.
- 11(d) The main points offered tended to be about the fact that the batch manufacture would be quicker and cheaper. Few considered other factors such as the slight irregularities in the finished product, automated production versus hand manufacture, or the possible low pay or exploitation of the workers making the craft products.

Section C

This is a compulsory section of the paper and candidates are required to provide longer, more structured responses to a variety of questions which were based on the design and manufacture of a specific product. The format for this section is very similar to that used in previous papers. Product analysis is a popular coursework activity and candidates who are practised in analysing a wide variety of different textile products are better equipped to answer this type of question on the written paper.

Question 12

- 12(a) Those candidates who understood the concept of cutting the filament silk fibres down to match the form of the staple cotton fibres usually scored well. There were many confused responses with vague terminology. The manufacture of yarns is AS knowledge and candidates would be advised to ensure they have a full understanding of the different methods used to produce yarns made from different fibre types.
- 12(b)(i) Most candidates were aware that both cotton and silk crease easily, although there were some sketchy details in some answers.
- 12(b)(ii) Clear references to the inclusion of a thermoplastic fibre to allow the permanent heat setting of the creases allowed some candidates to score two or more marks. However, many candidates did not understand that the question asked for a modification to the fibre content to give *permanent creasing*, and simply recommended a higher percentage of the cotton fibre, or the addition of linen.
- 12(c) Candidates showed good knowledge of where interfacing would be used and the reasons for using it in the shirt shown, allowing the vast majority to be awarded two or three marks. Most overlooked the request to consider the *choice* of interfacing, resulting in very few scores of more than half marks.
- 12(d)(i) There was good awareness of the basic reasons for using sub-assembly systems in industrial manufacture, but many explanations lacked sufficient detail for the award of high marks.
- 12(d)(ii) The vast majority of candidates scored at least one mark here.

- 12(e) This part of the question was poorly answered as there was little understanding of the interface between retailers and manufacturers, and the role of EPOS and JIT in responding to changing consumer demand. Many candidates wrote at length about the use of CAD and CAM to speed up manufacture which was not the focus of the question.
- 12(f) Many of the candidates answered this question from perspective that limited editions are used to test consumer reaction to, and demand for, a new product before full scale manufacture is undertaken. The better responses provided examples of various limited edition fashion ranges and explained their role in catering for a different market sector than that of standard ranges.
- 12(g) There were some good responses with the quality of fabric, components and manufacture identified as being differentiating features. Many referred also to the individual styles, offering examples of retailers' premium ranges to illustrate points made. Some responses lacked detail and variety of points; those who provided specific examples tended to score higher marks.

Mark Ranges and Award of Grades

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