



**General Certificate of Education (A-level)
June 2011**

**Design and Technology:
Textiles**

TEXT1

(Specification 2560)

Unit 1: Materials, Components and Application

Report on the Examination



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General

The format of the paper is now well established and candidates appeared to be familiar with what is required of them. Scripts were mostly well presented although some candidates' handwriting is very difficult to read, especially if they do not use *dark* black ink as instructed, and/or reduce the size of their handwriting in order to cram more information into the space allowed for answers. Continued attempts to reduce the number of additional pages used by including more lines in the combined question/answer booklet seems to have worked well, although a sizeable number continued their answers in the side margins of the paper, writing at a 90° angle to the main body of the answer. This is very difficult for examiners to read as on-line marking does not allow them to turn the page round as with conventional paper marking. Where it is necessary for candidates to continue their answer well beyond the space allowed, they should use an additional page.

Of the two optional questions in Section B, Question 8 was chosen by approximately 88% of candidates. Those who chose Question 9 tended to fare less well than those answering Question 8.

It was evident that many candidates have benefitted from the materials used at the recent CPD and Teacher Support meetings for teachers of this specification; many candidates showed a brief plan at the start of longer answer questions and this helped them to write more logical and concise responses. However, some are including the subject content information when it is neither relevant nor appropriate!

Some candidates miss the point of questions and their answers include much irrelevant material, especially when they dwell on their opinions rather than providing factually correct information – this was especially the case with Question 10.

Section A

Many candidates are not scoring full marks on these very straightforward questions testing basic knowledge and understanding.

- 1 This was well answered with approximately 90% of candidates achieving two or more marks.
- 2 Only just over a half of the candidates recognised the wool fibre, and only about one-third correctly named the scales (or cuticle) of the wool fibre. Part 2(c) was not well answered as there was a lack of understanding of the way in which the wool scales interlock in the presence of heat, moisture and friction (ie normal washing conditions) causing shrinkage. This is basic fibre knowledge with which candidates should be familiar.
- 3 This question was a good discriminator. 50% were able to correctly explain that a JIT system is *on-demand* manufacturing and stock control, and two-thirds were able to provide at least one benefit of such systems for clothing manufacturers.
- 4 A very well answered question with well over 70% of responses awarded at least one mark. The most common effects described were adding warmth and softness, and some were aware that brushing would also make a fabric weaker or more flammable.
- 5 Candidates either knew the term *melt-spinning* and were able to explain the basic process or they did not, almost 70% of answers fell into the second category.

- 6 Many candidates explained how overlocking works, often repeating the question, rather than considering the reasons why it might be chosen for a seam finish. This meant that almost 25% of candidates failed to score a mark on this question.
- 7 The cut pile weave was recognised by just under 25% of candidates, but almost 30% were able to correctly name a fabric made from this method of construction.

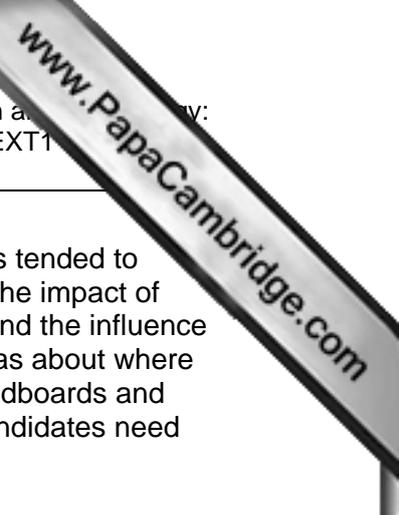
Section B

- 8(a) Questions on fabric construction appear regularly on the paper and candidates generally score well. The twill weave was often incorrectly shown as a plain weave which meant that just over 20% did not score a mark on this part of the question. The most aware explained the use of different coloured warp and weft threads to achieve the denim fabric. Candidates who used a correctly labelled diagram scored better than those who attempted a written description only.
- 8(b) This question produced a good spread of responses. Most referred to the strength of the cotton fibre and the fact that it does not attract static. There were also good explanations of how cotton's absorbency would fail to protect an electronic product in wet conditions. Equally, there were far too many candidates who stated that cotton is a cool fibre and would therefore prevent a product from setting on fire, or that the absorbency would cause electric shocks. Some candidates wrote about the environmental issues relating to cotton, but these were not relevant to this question and did not help them to score marks. There is a misconception that the fabric is a blend of cotton and denim.
- 8(c)(i) Almost all referred to the additional strength or support which would be provided by the interfacing, but some confused interfacing with a wadding or a lining.
- 8(c)(ii) There was some good awareness of the need to avoid the use of a bulky thread where a close stitch is to be used, and many showed knowledge of the lustrous nature and bright colours associated with machine embroidery threads. References to strength of viscose and ease of care were not given credit.
- 8(d) The effect of textiles on the environment is an established topic and candidates are generally showing good awareness of the issues. 10% of candidates did not gain a mark on this question. Candidates were asked also to consider the social and moral effects and again, there was evidence of good knowledge and understanding. Where marks were lost, it was usually because the effects were not fully explained. Only a narrow range of issues was covered, or one area was not covered. Some confused candidates wrote at length about their perceptions of denim causing religious intolerance and divisions in society. The most aware understood the combined effects of pesticides and fertilisers on the environment and health of workers, and how being forced to work in *sweatshop conditions* could impact on people's lives. Centres are advised to study the mark scheme for this question in order to raise awareness of what is expected in this type of answer.

- 9(a) The question was a good discriminator but most candidates who attempted it had little knowledge of how and where textile materials are used in cars. Those who correctly identified a use, eg car seats, seat belts, often failed to score further marks because they wrote about the benefits of having seat covers or seat belts, rather than the benefits of using the textile materials. There was a universal lack of knowledge about the use of synthetic fibre fabrics, especially polyester fabrics, for this type of application, and it was this lack of understanding which was directly responsible for the low scores on this question.
- 9(b)(i) The response to this question was disappointing with candidates showing little accurate knowledge of the properties and uses of polyamide fabrics. The most obvious points included reference to strength and low absorbency, but beyond that there was little real understanding. This was an opportunity for candidates to show their awareness of modern fabrics such as Gore-Tex and Kevlar – materials which they are usually very keen to write about – however these topics were not covered by vast majority who attempted the question.
- 9(b)(ii) This should have been a very straightforward question for candidates, allowing them to show their awareness of reflective, micro-encapsulated and smart materials, and those with electronics. It was sufficiently open to allow for a wide range of different fabrics to be included in relation to many different applications. However candidates' answers were often very narrow in scope, with inaccurate information.

Section C

- 10(a) Answers were generally good with candidates considering the different directions of the stripes and their combined effect on the outfit as a whole so that well over 50% were awarded two or more marks. A lack of detail was the main reason why candidates failed to score high marks.
- 10(b) Many candidates paid little attention to the fibre qualities in the fabric blend, instead giving their opinion of the colour and pattern, and its appeal to them in some detail. As is always the case where blended fabrics are concerned, many gave the properties of the individual fibres rather than an explanation of their combined effects. Only a small minority referred to the texture provided by the bouclé yarn. Over 60% of candidates did not achieve four or more marks. Candidates need to be aware of the mark allocation for this type of question and ensure that they have provided enough accurate detail about all aspects of the fabric and components in order to secure a high mark.
- 10(c) Those who compared the more complex structure of the jacket, including shoulder pads and a lining, with the simpler structure of the shorts usually scored full marks. Others wrote confused accounts about the shorts being worn more frequently than the jacket, or worn closer to the body, which did not help them score marks.



- 10(d) Candidates who realised that the question was about trend predictions tended to achieve high marks, and there were some very good accounts about the impact of catwalk shows, professional trend prediction agencies, street styles, and the influence of celebrities, royalty and film. Those who thought that the question was about where a designer might find inspiration for new garments, eg museums, moodboards and books did not score highly. It is easy to make this type of error and candidates need to read the question carefully to avoid this.
- 10(e) The question was misunderstood by a number of candidates who wrote about one-off production, thereby limiting the number of marks they were able to score. If candidates realised that *unique range* means *limited numbers*, they usually answered in some detail, making reference to the better quality of materials and manufacture, more complex and fashionable style details, and, as is sometimes the case, the involvement of a top designer.
- 10(f) There appears to be a lack of knowledge and understanding of the problems associated with directional fabrics. Some responses were impractical, e.g. 'cut the fabric strips the same width before sewing them together to make the fabric', 'print the stripes after the product is sewn together', 'cut every piece by hand, one at a time', 'use a red and white striped thread when sewing garments together'.

This type of question requires some basic understanding of the nature of the issues together with some awareness of industrial processes. The main creditworthy point in most answers was a reference to ensure that the stripes match. Only the most astute picked up on the fact that the planning of the cutting to ensure that stripes will match when sewn together is crucial to the success of the end product – it cannot be rectified at a later stage.

Many also explained how CAD could help with layout planning, and the increased wastage associated with directional layouts. Centres are advised to study the mark scheme for this paper in order to raise awareness of the problems and how they might be resolved.

- 10(g) A wide range of responses with the most able candidates referring to a range of different issues, including legal requirements, related to industrial manufacturing. At the bottom end of the ability range, candidates are still immersed in classroom rules with little understanding of the strict laws governing factories. Some continued their debate of environmental, social and moral issues from Question 8(d) which did not earn them any further credit for either question. Many able candidates did not score highly because their answers tended to concentrate on one small area of concern – protective clothing was a particular case in point. Others wandered off into protection for the end-user of the product rather than the workforce making the product.

Mark Ranges and Award of Grades

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