



**General Certificate of Education (A-level)  
January 2013**

**Design and Technology:  
Textiles**

**TEXT1**

**(Specification 2560)**

**Unit 1: Materials, Components and Application**

***Report on the Examination***

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## General

The paper appears to have been well received by candidates and there was a slight improvement in the knowledge shown at all levels. Scripts were mostly well presented although some candidates' handwriting is very difficult to read, especially if they do not use black ink as instructed, and/or reduce the size of their handwriting in order to squeeze more information into the space allowed for answers. Some candidates wrote two lines of answer in the space allowed for one line on the paper which makes it difficult to read the response. Similarly, writing at a 90° angle to the main body of the answer does cause difficulties for examiners marking responses. 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 7 was chosen by approximately 63% of candidates. Those who chose Question 7 tended to score slightly higher marks than those answering Question 6.

Many candidates sensibly showed a brief plan at the start of longer answer questions and this helped them to write more logical and concise responses. Some candidates did miss the point of some questions and their answers included much irrelevant material, especially when they dwelled on their opinions rather than providing factually correct information – this was often the case with Question 6(a).

## Section A

The majority of candidates were able to score very highly on Questions 1 and 3 which helped increase the average mark for this section. There are still many candidates, however, who fail to score marks on these questions which test basic knowledge and understanding of the subject content.

- Q1 This question did not cause any problems and approximately 64% of candidates were able to correctly place all six fibres. *Tencel* was the most commonly misplaced fibre.
- Q2 60% of candidates were able to give a clear explanation of the difference between a fibre and a yarn (2a) to achieve 2 marks, although 10% scored a zero mark. Staple and filament *yarns* were confused with *fibres* (2b) so that only 30% scored 2 marks, and 54% did not achieve a mark at all.
- Q3 Most candidates (70%) scored full marks but 10% were only able to match two or fewer of the fabrics with the correct description. Predictably, polar fleece and felt were the fabrics most commonly misplaced.
- Q4 Almost half of candidates scored 2 marks with tie-dye and batik the most common methods given, but almost a third of answers (31%) were not given a mark. Many candidates did not appear to understand the concept of a resist method; *dyeing the fabric*, *embroidery*, and *dyeing in factories* were common incorrect responses.
- Q5 The topic of sub-assembly (5a) has appeared on a number of past papers and 46% of candidates scored a mark for a correct explanation referring to a *separate line* of manufacture. Many candidates do not make the fact that it is a separate line clear, and their responses do not make a sufficiently clear distinction between this and progressive bundle style manufacturing systems.

Advantages of sub-assembly (5b) were generally clearly explained leading to more than half the candidates being awarded 2 marks. One-word answers such as *cheap*, *quick* and *easy* were not given credit as at this level of study candidates should be

able to give a clearer explanation than that afforded by such general and vague terminology. More than 10% of responses were not given a mark.

## Section B

- Q6(a) Questions on environmental and ethical issues relating to textiles have appeared regularly on previous papers and candidates generally show good knowledge. This examination was no exception to that trend and examiners saw some very high quality answers with about 7% being awarded marks from the top mark range. Yet 30% of responses were placed in the lowest mark band. Those achieving the highest marks referred to a wide range of issues and gave specific and accurate details of the impact of textiles on the environment and on people's lives.

There were many different reasons for low scores including a failure to restrict the points made to the **manufacture and processing of fibres and fabrics**; a high percentage of answers diverged into the manufacture of clothing, especially with reference to ethical issues, which left candidates insufficient time to make more relevant points relating to manufacture. Others wrote at length about health and safety issues which were not the focus of the question, and a significant number took the opportunity to expound their opinions of sweat shop manufacture, often at the expense of a broader discussion of a wider range of issues.

Examiners look for a wide range of issues with the effects fully explained, and with specific detail. The most able candidates are improving in this area but many are still offering only basic information such as *dyes are bad for the environment* and *transportation causes global warming*. 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.

- Q6(b) There was a good range of responses which were marginally better than those for part (a) of this question; 14% of answers were awarded 7 or 8 marks and 16% were given 2 or fewer marks. Many candidates made appropriate reference to buying organic products, washing at reduced temperatures, and the need to re-use or recycle clothing rather than throw it away. Here again, examiners were looking for a broad spread of different points. Many candidates did not seem to have a clear understanding of the logic of some of the advice they offered and there is a misconception that biological detergents are better for the environment than non-biological products. Where as both have the same impact. Some candidates also claim that products can only be washed at 30°C if the care label shows this information; students should be aware that higher temperatures shown are a recommended *maximum* and that it is perfectly allowable to wash at a lower temperature even if this is not shown.

- Q7(a) The use of cotton fabrics has been a frequent topic on past papers yet many candidates do not score high marks for the application of their knowledge relating to the properties of cotton. Examiners saw some very poor and inappropriate reasons concerning the suitability of the plain weave fabric for a tea cosy; though it is worth noting that many candidates made relevant reference to the weave structure even when they were confused about the use of the cotton fibre. Some candidates made reference to the fabric in terms of it being worn, like an item of clothing, and many did not appear to be familiar with needlecord, describing it as a *stiff, non-woven* fabric. The issue of absorbency caused many misunderstandings.

The insulation properties of a plain woven fabric were also an issue for a large proportion of candidates; it is an irrelevant quality in this instance as the inclusion of the wadding provides insulation. A sizeable number were also convinced that the fabric would or would not stretch in order to accommodate different sizes of teapot.

Failure to evaluate the pros and cons and a lack of accurate, relevant knowledge and understanding were directly responsible for the low scores on this question. Only 8% of answers were given full marks, and approximately 59% were awarded 2 or fewer marks.

- Q7(b) This question was well answered and many candidates scored well. The principle of trapping air in order to insulate is well understood and many candidates also made appropriate reference to the quilting and structure of the product.
- Q7(c) The majority of candidates correctly identified the 3 care symbols but there was the usual confusion about the *tumble dry* symbol, and a surprising number thought that the *do not bleach* symbol refers to ironing. There has been an improvement in explaining the reasons for the advice in relation to the fabric and product and 15% of answers were given full marks. Many candidates do not understand, however, that hand washing is a gentler process than a machine wash and that it is water, not heat, which causes shrinkage in cotton fabrics. References to avoid bleaching should be about the removal of colour from a product, not staining it or, in this case, the risk of bleach contaminating the tea. Vague terminology, eg washing/bleaching will *ruin* the product is also a main reason why some candidates failed to score marks on this question.
- Q7(d) This part of the question was done well with 23% of responses given full marks. Where marks were lost it was often because of a lack of clarity or the ability to identify 3 different and specific areas for quality control, and the care needed in manufacture.

### Section C

- Q8(a) This question was a good discriminator with marks fairly evenly spread. Candidates offered some very well considered points and approximately 30% were rewarded with 4 or 5 marks. Some failed to refer to what are probably the most important considerations when buying school wear – ease of care, durability and cost. Some anticipated the next question and evaluated the appropriateness of the skirts shown. Only 5% of answers were given 1 mark or less.
- Q8(b) Successful answers considered the differences between the two skirts, and the relevance of the fabric structure, fibre content and style details. There were some excellent references to the different properties of the fabric structures and many candidates made sensible points about the elasticated waistbands and zip fastening of Skirt A. A high proportion of candidates repeated information about the fibre content (which was the same for both) when referring to the skirts and this did not help them to score marks.

This question was similar to one on the June 2012 paper and examiners noted a marked improvement in the fibre knowledge shown. There remains, however, much confusion, misunderstanding and lack of accuracy about the properties of both viscose and polyester fibres. Viscose is **not** a strong fibre, which is why it is often blended with polyester, and polyester is **not** absorbent, which is why it is often blended with fibres which are. When answering questions about fibre blends, candidates need to consider how the individual fibres work together rather than listing

the qualities about each fibre in the blend. Many were confused about the importance of polyester's thermoplastic nature; it allows the pleats to be heat set so that they are permanent, it does not cause problems when washing fabrics if care advice is followed.

A significant number of candidates did not know how the Teflon finish would affect the fabric and many referred to it as being a flame-retardant, crease resistant or fabric strengthening finish, with a high proportion saying that it would make the skirts more wearable if it was raining at playtime.

Some candidates were vague about the advantages of the finish and did not state how it would be useful. Many did not seem to be aware that by the age of five, children have ceased putting everything in their mouths so that the danger of choking from buttons and buckles which have fallen off clothing has passed.

Almost 12% of answers were placed in the top mark band, but just over 30% were in the lowest mark band with the average mark being approximately 5 marks. A lack of accurate knowledge and a failure to consider fibre properties and to look at all aspects of the skirts were the main reasons for low marks.

- Q8(c) The style of the cover-up needed to be fairly simple with thought given to ease of access, fabrics which would allow easy care, and possibly some unique feature to appeal to young children. The question discriminated between candidates well and examiners were presented with a variety of different styles of garment.

One of the main reasons for low marks was the inappropriate nature of the garment styles – zips and buttons down the back, hoods, floor length garments, buttoned roll-back sleeves and jumpsuit styles are unrealistic for small children in a classroom situation. Those who showed basic apron styles were not awarded high marks as they showed little skill in designing and aprons do not adequately cover school uniform. Many candidates had clearly not thought their designs through as there were disposable aprons with appliquéd designs, sleeves in aprons with nowhere to attach them, and tight fitting waisted garments which were more adult fashion than unisex school wear.

Fabric choice was also a weakness with many candidates suggesting Gore-Tex and knitted fabrics. Unfortunately, a lack of thought about how and where the product is to be used led to weak design ideas.

The average mark was just under 4.

- Q8(d) Whilst many candidates were aware that risk assessment is related to health and safety in the workplace or in to a product offered for sale, some erroneously thought it was about testing products to ensure their safety. Just less than 22% of answers were give 2 marks, and just over 27% were given a zero mark.
- Q8(e) This question was misunderstood by a number of candidates who wrote about general factory safety, the manufacture of the fabric or application of the finish, or issues relating to the user of the skirt. This was the main reason why 30% of responses were given one or no marks. Those candidates who understood that the question was about the making of the skirt were generally able to identify three clear areas of concern but marks were lost because of a lack of precision in stating the risk and the specific precaution needed, e.g. when using fabric cutting machines there is a danger of cutting the hand so chainmail gloves should be worn.

Q8(f) This question also discriminated well and there was a good variety of points included in answers. Many responses concentrated on the low cost to the consumer, and offset this with references to perceptions of poor quality, or to unethical manufacture. There was also good awareness of the convenience of buying clothing in supermarkets although few ventured beyond points relating to school uniform. Almost 10% of answers were awarded full marks; those who failed to score any mark (about 8%) nearly all misunderstood the question and wrote at length about different manufacturing systems.

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