



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

**Design and Technology: TEXT1  
Product Design (Textiles)**

**(Specification 2560)**

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

**Final**

***Mark Scheme***

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Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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**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 which 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.

<b>(low mark range)</b>
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
<b>(mid mark range)</b>
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.
<b>(high mark range)</b>
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.

**Section A**

Qu	Part	Marking Guidance	Mark												
1		<p>Place each of the fibres listed below in the correct box of the table.</p> <p><i>Nylon Bamboo Mohair Cotton Tencel® Elastane</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Natural cellulose</th> <th>Natural protein</th> <th>Regenerated</th> <th>Synthetic</th> </tr> </thead> <tbody> <tr> <td>Bamboo</td> <td>Mohair</td> <td>Tencel</td> <td>Nylon</td> </tr> <tr> <td>Cotton</td> <td></td> <td></td> <td>Elastane</td> </tr> </tbody> </table> <p>1 mark for each fibre correctly placed.</p>	Natural cellulose	Natural protein	Regenerated	Synthetic	Bamboo	Mohair	Tencel	Nylon	Cotton			Elastane	6 marks
Natural cellulose	Natural protein	Regenerated	Synthetic												
Bamboo	Mohair	Tencel	Nylon												
Cotton			Elastane												
2	(a)	<p><i>What is the difference between a fibre and a yarn?</i></p> <p>A fibre is a starting point for yarns / the most basic unit of a yarn or fabric / a fine/small natural or man-made hair-like structure strands of molecules/polymers (1 mark). Yarns are made by twisting/spinning fibres together to give them strength / make them into useable lengths (1 mark).</p>	2 marks												
2	(b)	<p><i>Explain the difference between a staple yarn and a filament yarn.</i></p> <p>A staple yarn is made from short fibres (1 mark) A filament yarn is made from continuous fibres (1 mark) Staple yarn is hairy, filament yarn is smooth (1 mark) Any 2 appropriate points, 1 mark each</p>	2 marks												
3		<p>Place each of the fabrics listed below in the correct box of the table.</p> <p><i>Polar fleece, Felt, Gingham, Corduroy, Single Jersey</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Description of fabric</th> <th>Fabric name</th> </tr> </thead> <tbody> <tr> <td>A non-woven fabric often made from wool.</td> <td>Felt</td> </tr> <tr> <td>A weft-knitted fabric with different face and reverse sides.</td> <td>Single Jersey</td> </tr> <tr> <td>A cut-pile fabric with raised cords which run down the fabric length.</td> <td>Corduroy</td> </tr> <tr> <td>A soft, thick knitted fabric which is brushed on both sides.</td> <td>Polar fleece</td> </tr> <tr> <td>A plain weave fabric made with dyed yarns to form a checked pattern.</td> <td>Gingham</td> </tr> </tbody> </table>	Description of fabric	Fabric name	A non-woven fabric often made from wool.	Felt	A weft-knitted fabric with different face and reverse sides.	Single Jersey	A cut-pile fabric with raised cords which run down the fabric length.	Corduroy	A soft, thick knitted fabric which is brushed on both sides.	Polar fleece	A plain weave fabric made with dyed yarns to form a checked pattern.	Gingham	5 marks
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4		<p><i>Name <b>two</b> resist methods of applying colour to fabric.</i></p> <p>Tie-dye, batik, resist printing. Also accept gel and starch pastes.</p> <p>Any 2 appropriate methods, 1 mark each.</p>	2 marks												

<b>5</b>	<b>(a)</b>	What is meant by <i>sub-assembly</i> manufacture?  A separate line of manufacture for part of a product.	<b>1 mark</b>
<b>5</b>	<b>(b)</b>	<i>Give two advantages of using sub-assembly manufacture</i>  Eg to use specialist machinery, to reduce costs, to use specialised skills, for health & safety reasons, saves time in manufacture. Sections of product are quality checked, improves accuracy/quality/consistency. May be related to JIT. Reduces waste. <i>Quick and cheap</i> need explanation—if given as 2 points, allow 1 mark only, if only 1 given, 0 mark. Do not allow <i>easy</i> unless clearly explained.  Any 2 appropriate points, 1 mark each	<b>2 marks</b>

**Section B**

Qu	Part	Marking Guidance	Mark
6	(a)	<p><i>Designers and manufacturers of textile products have a responsibility to consider environmental and ethical issues. Discuss this statement with reference to the manufacture and processing of fibres and fabrics used in textile products.</i></p> <p>The question is about the <b>manufacture and processing of fibres and fabrics</b> – it is not about product manufacture, use or disposal, health and safety issues, design of products, choice of materials. Nor should it be a debate about what manufacturers should do.</p> <p>The following <u>underlined issues</u> may be included in an answer:</p> <p><b>Fibre source:</b>  <b>Area 1(a) Environmental issues:</b> <u>Land</u> and habitats are destroyed to plant <u>cotton</u> crops; they are treated with vast amounts of <u>pesticides and fertilizers</u> which can pollute waterways and surrounding land; vast quantities of <u>water</u> are needed which can impact on the environment if rivers are diverted to water crops, eg Aral Sea disaster.  <u>Synthetic fibres</u> are derived from fossil fuels which are non-renewable and rapidly running out. Some <u>regenerated fibres, eg lyocells</u>, have been developed in order to have <u>minimum impact</u> on the environment.</p> <p><b>Area 1(b) Impact on lives:</b> Valuable <u>land space</u> could be used for food crops; use of <u>pesticides and fertilizers</u> can poison drinking water. <u>Surrounding land</u>, where workers live, may also be affected by fertilisers and pesticides. The pesticides and fertilizers used on cotton crops can have disastrous effects on the <u>health of farmers</u> and other workers if they breathe in the spray, or if it comes into contact with their body; people who live where rivers and seas have dried up may <u>lose access to food</u>, eg fish, some may <u>lose their livelihoods</u> because they can no longer fish. Growing cotton uses vast amounts of water. In many countries where cotton is grown, there is <u>not enough water</u> for the people who live there to drink. The <u>depletion of fossil fuels</u> will cause problems for the future and is <u>wasteful of a valuable resource</u>.</p> <p><b>Processing of fibres and fabrics:</b>  <b>Area 2(a) Environmental issues</b> <u>Cleaning and preparation</u> of cotton requires chemicals, eg bleach, enzymes, pumice which can damage eco-systems if not disposed of properly; <u>dyeing of cotton</u> uses large quantities of water and produces toxic waste which must be treated before disposal. Chemicals used to apply <u>finishes</u> must be disposed of correctly as they can poison ground water.</p> <p style="text-align: right;"><b>Continued</b></p>	

6	(a)	<p><b>Area 2(b) Impact on lives:</b> <u>Chemicals used can impact on health</u> of workers if H&amp;S procedures are not in place; <u>using certain machinery</u> can be dangerous if there are no safeguards - in the UK, laws protect the health and safety of workers and prevent them from being <u>exploited by unscrupulous employers</u>. When textile products are made in other countries, especially less economically developed ones (LEDCs), those laws don't apply, workers should be <u>paid fairly</u> for the work they do.</p> <p><b>Energy use:</b></p> <p><b>Area 3(a) Environmental issues:</b> fibres are often grown / manufactured <u>a long way away from where they are processed</u> into fabric so travel a long way to the factory. <u>Fuel from non-renewable sources</u> is needed for the planes, boats and lorries which deliver it, and more <u>CO2 fumes and carbon emissions</u> will be released into the atmosphere causing global warming. There is <u>damage to road systems</u> and need for repair work; electrical energy is used to <u>power the machines</u> and heat water for the processing of fibres and fabrics using non-renewable energy sources.</p> <p><b>Area 3(b) Moral issues:</b> <u>Oil is rapidly running out</u> so will cause problems for future generations, <u>rationed energy supplies</u> in some areas where fabrics are manufactured, use of nuclear reactors to generate electricity can affect people's health if there are <u>radiation leaks</u></p> <p>The <b>6 areas and associated issues</b> listed above are the main ones relating to fibre and fabric manufacture, but candidates may well discuss other equally valid problems within those areas. Before awarding extra marks, check that other issues raised are actually different to the ones which may have already been credited. In order to qualify for the top mark band, candidates must explain what the problems are with some precision, eg <i>CO2 from exhaust emissions causes global warming, not lorries give off poisonous gases.</i> Candidates may suggest ways of improving the situations described.</p>	<p style="text-align: right;"><b>Continued</b></p>
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<b>6</b>	<b>(a)</b>	<p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"><li>• Very basic information with limited number of points which may not relate to both areas of concern. Explanation is confused with many inaccuracies and may cover a very narrow range of issues. Understanding is simplistic and understated. May be a generalised response with no specific explanation of the issues involved. 0 – 3 marks</li><li>• Some relevant information about a narrow range of issues. Points will be largely accurate but there will be some confusion, especially at the lower end of the mark range. Response will relate to 3 or more areas but may be repetitive and will lack detail. 4 – 6 marks</li><li>• Sound information covering a range of environmental <b>and</b> moral issues and which is mostly accurate. Response will possibly cover a wide range of issues but lack detail of some. There may be a number of issues (5+) taken from at least 3 areas superficially or may cover a few (3+) taken from at least 3 areas in some detail. 7 – 9 marks</li><li>• Sound and accurate information covering a range of environmental <b>and</b> moral issues although they may not be in equal measures. At least 7 issues taken from 4 or more areas will be covered - the candidate will be informed and information will be accurate, explained in detail and up-to-date. 10 – 12 marks</li></ul>	<b>12 marks</b>
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6	(b)	<p><i>Analyse the ways in which consumers can reduce environmental impact by the way in which they buy, use and care for textile products.</i></p> <p><u>Demanding less packaging of products</u> which can be wasteful of paper, card, plastics, printing inks, and the <u>energy used</u> to produce and <u>transport the packaging</u>.</p> <p><u>Buying fewer products</u> as they are often not fully used - changes of <u>fashion</u> and buying of new products can waste valuable resources. Looking for products made from <u>environmentally friendly/organic fibres</u> such as lyocells. <u>Shop online</u> to save travelling to shops, <u>buy locally made products</u> when available to reduce carbon footprint. <u>Buy better quality, longer lasting</u> products to reduce impact of manufacturing. Buy from shops which promote sustainability.</p> <p>Washing products <u>only when they are dirty</u> and using less detergent; <u>the use of detergents</u> and dry cleaning fluids and <u>effluent from these can poison waterways</u>. Only wash when there is a <u>full load</u> and wash at a <u>lower temperature</u>; <u>energy and water</u> are used to wash products – these are valuable resources. <u>Dry clothes outside</u> if possible to avoid using energy on tumble-drying. <u>Do not iron clothes</u> unless essential to save energy. <u>Look after products</u> so that they last longer and do not have to be replaced.</p> <p><u>Re-use or re-cycle</u> unwanted products; disposal of discarded textile products is often to <u>landfill sites</u>. Fabrics and components can take many <u>years to decompose</u> with the consequent methane production, and <u>leeching of heavy metals</u> from components such as zips.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• Simplistic points, many of which will be irrelevant. There will be a lack of understanding with few examples and confused and inaccurate information. 0 – 2 marks</li> <li>• Candidate shows mainly accurate understanding of the issues involved and will offer suggestions from 5 or more of the areas underlined. There will be some examples to illustrate points made but there will be elements of confusion, especially at the lower end of the mark range. Some points will be explained. 3 – 5 marks</li> <li>• Clear and relevant advice from 7 or more of the underlined areas. Information will be accurate with examples to support points made. Most points will be explained. 6 – 8 marks</li> </ul>	8 marks
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7	(a)	<p><i>The main fabric used is plain weave cotton. The red fabric is cotton needlecord. Critically evaluate the suitability of the plain weave cotton and the needlecord for the tea cosy.</i></p> <p>The <b>cotton</b> will give strength which will be needed for regular use. It is an absorbent fibre so will take the print well but will also absorb stains easily. It will be easy to care for as it washes well but will take a long time to dry. The <b>plain weave</b> also contributes to the strength, provides a smooth surface for the print and does not detract from the design, and it is pleasant to handle. The <b>needlecord structure</b> gives depth and texture for the decorative parts, and has a soft, velvety texture to contrast with the main fabric. The fabrics are flammable, and not particularly abrasion resistant, especially the needlecord.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• Basic information with evidence of only limited knowledge of the fibre and fabric properties. Candidate will not make a real evaluation and may ignore one of the fabrics. The answer may be descriptive of the cosy and information generalised rather than specific. There will be inaccuracies and confusion. 0 – 2 marks</li> <li>• Candidate shows knowledge of the fibre properties but there will be a lack of specific information. Good understanding of the qualities of cotton but little reference to the qualities of the 2 fabrics. There may be elements of confusion. Some attempt to evaluate the suitability of the fabrics for the cosy. 3 – 4 marks</li> <li>• Candidate shows detailed knowledge and understanding of the properties of the cotton fibre and the 2 fabrics. There will be sound evaluation of their use for the cosy. A very detailed and accurate response with no evaluation may be awarded 5 marks. 5 – 6 marks</li> </ul>	6 marks
7	(b)	<p><i>The tea cosy has a layer of polyester wadding between the main fabric and the inner lining. Explain the reasons for this.</i></p> <p>The wadding traps air (1 mark)  This is an insulator so keeps tea hot (1 mark)  Protects hands from heat of tea pot (1 mark)  Allows for quilting / adds depth to the quilted areas / pads out the cosy (1 mark)  Adds weight/structure/shape/stability/bulk (1 mark)  Wadding is lightweight (1 mark)  Appropriate reference to polyester being non-absorbent (1 mark).</p> <p>Not adds strength.  <b>Any 3 points, 1 mark each.</b></p>	3 marks

7	(c)	<p><i>The three symbols shown below appear on the care label attached to the tea cosy.</i></p> <div style="text-align: center;">  </div> <p><i>Give the meaning of each symbol and explain the reasons why this care is recommended for the tea cosy.</i></p> <p>The cosy must be <b>hand washed</b> because the shape, structure and delicate parts could be spoiled with agitation. It must <b>not be bleached</b> because it is coloured. It must <b>not be tumbled dry</b> because the friction could damage the shape and structure, or delicate parts.</p> <p><b>Marks awarded as follows</b></p> <ul style="list-style-type: none"> <li>Minimal explanation which does not clearly relate to qualities of materials or structure of the product. The candidate will tend to explain what the symbols mean and there may be elements of misunderstanding and confusion. <span style="float: right;">0 – 2 marks</span></li> <li>Detailed explanation of what the symbols mean together with clear explanation of how the advice relates to the qualities of the materials used and the structure of the cosy. Information will be accurate and clearly presented. <span style="float: right;">3 – 5 marks</span></li> </ul>	<b>5 marks</b>
7	(d)	<p><i>Identify <b>three</b> different areas where quality control will be important when manufacturing the tea cosy. Explain what care will be needed in order to ensure a high quality finished product.</i></p> <p>This is about making the tea cosy, it is not about the design, fabric or component choice, making or printing the fabric.</p> <p>Eg, <b>Cutting of shapes</b> to ensure an even finished product and that all pieces fit together as intended; <b>Accurate stitching</b> to ensure even shapes, no holes in edges of shapes, correct sizing; Correct <b>placement of appliqué</b> for eye to ensure attractive appearance and both sides of head are even; Accuracy when <b>applying binding</b> to lower edge to ensure it is even both sides and doesn't come off in places; Accuracy when stitching <b>quilted wings and tail</b> to ensure stitching matches shape and is correct distance from edges; ensure even thickness of wadding. Strong stitching for <b>hanging loop</b> to ensure it does not fall out with use. <b>Eye firmly attached</b> so it will not fall off.</p> <p><b>3 different areas identified, 1 mark each</b> <b>Explanation of care needed 1 mark each</b></p>	<b>6 marks</b>

**Section C**

Qu	Part	Marking Guidance	Mark
8	(a)	<p><i>Discuss the requirements that a parent or carer would have when buying a school skirt for a primary school child.</i></p> <p>The following issues are likely to be important in the majority of cases:</p> <p><b>Ease of care:</b> Primary school children are likely to get their school clothes dirty very easily and uniform garments will need regular washing, so machine washable, quick-drying no iron fabrics will be important.</p> <p><b>Strength and abrasion resistance:</b> knocks and tumbles are part of everyday life in the playground so tough hardwearing fabrics are needed. This quality will also allow for the garments to stand up to wear over a period of time and repeated washing of the garments.</p> <p><b>Value for money:</b> the garments will be outgrown quickly and are likely to be spoiled by everyday wear and tear. It can be expensive if they need to be replaced regularly, especially for parents with a limited income or a number of children to buy for. Styles should allow for growth, eg elasticated waistband.</p> <p><b>Comfort and practicality:</b> the style of the garments should allow for free movement and ease of care. Pockets may be impractical for the youngest children but a necessity for older ones, colour may need to meet school guidelines and also not be so light that it soils and stains easily.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• Basic information with limited explanation for the advice offered. The points will be the most obvious and information generalised rather than specific. There may be inaccuracies and confusion. 0 – 2 marks</li> <li>• Candidate offers a wide range of different points and explains the reasons for the advice given, especially at the top end of the mark range. Information will be realistic and related to the primary school child. 3 – 5 marks</li> </ul>	<p><b>5 marks</b></p>

8	(b)	<p><i>Skirt A is made from a twill weave fabric. Skirt B is made from weft knitted fabric. The fibre content of both fabrics is 65% polyester and 35% viscose. Critically evaluate how far the school skirts shown meet the requirements you have identified in (a). Make reference to the styles, fibres and fabrics.</i></p> <p>The candidate should refer to the fibre content, fabric structure, fabric finish, style and features of the 2 skirts in relation to the points made in (a) and for school skirts for primary children. The following points are likely to be included:</p> <p><b>Style of the skirts: Skirt A</b> has pleats which allow for movement, a partially elasticated waist to allow for growth/adjustable fit. A mock belt adds some style but could be removed to reduce costs. There is a zip in the side seam which may allow for a closer fit but which could be dispensed with as it may cause difficulties for a young child, and would reduce the cost of manufacture.</p> <p><b>Skirt B</b> has a limited number of pleats at the front of the skirt only, allowing for movement but reduced cost of manufacture and possibly easier to care for. Elasticated waistband. Mock pockets add style but also to the cost of manufacture.</p> <p>Top-stitching on yokes adds style detail and strengthens seams.</p> <p><b>Fabrics used:</b> Both are made from a polyester and viscose blend in which polyester is the majority fibre. <b>Polyester</b> is a strong, lightweight fibre which is resistant to abrasion so will withstand wear and tear, counteracting the weakness in the viscose fibre. It can be washed easily without shrinking, and dries quickly because it is non-absorbent. Because it does not crease easily, it will counteract this tendency in the viscose and means that the fabric will require little ironing. This ability to wash and dry the skirt quickly will be important in a child's garment. It is thermoplastic so pleats can be heat-set. As the polyester fibre is in the majority, its qualities will dominate the blend.</p> <p><b>Viscose</b> gives absorbency and softness to the fabric. But it creases and shrinks badly, and is weaker when wet. These properties will be offset by the polyester content of the fabric. The polyester/viscose is relatively inexpensive allowing for replacement of the skirt when outgrown or spoiled. The dark colour of both skirts does not easily show dirt and stains and fits in with many school uniform policies. The polyester and viscose fibre content of both skirts may lead to pilling which spoils the appearance and makes the skirt quickly look worn, and the blend will be highly flammable. Skirt A has a <b>Teflon finish</b> which helps reduce staining.</p> <p>Skirt A has a <b>twill weave</b> which adds strength and stability to the fabric. <b>Skirt B</b> is made from a weft knitted fabric which gives flexibility and reduces creasing, but may lose some shape over a period of time.</p> <p style="text-align: right;"><b>Continued</b></p>	
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<b>8</b>	<b>(b)</b>	<b>Marks awarded as follows:</b> <ul style="list-style-type: none"><li>• Little understanding, simplistic statements only, candidate typically concentrates on limited fibre qualities/style features without reference to intended use. The skirts may be described rather than analysed. There may be confused and inaccurate information with little real evaluation or reference to requirements identified.<p style="text-align: right;">0 – 3 marks</p></li><li>• Candidate shows understanding of the contribution made by the fibres but points will tend to emphasize the positive aspects. The interaction between the fibres in the blend will not be fully explained, especially at the lower end of the mark range. There will be some references to style and the requirements identified. At the top end of the mark range, there will be some evaluation of the 2 skirts. There may be minor confusion but most points will be accurate.<p style="text-align: right;">4 – 7 marks</p></li><li>• Candidate shows sophisticated understanding of the contribution made by both fibres in the blend and clear understanding of the interaction between the fibres. Comments on style features will be perceptive. There will be clear references to the requirements identified and a thorough evaluation of the 2 skirts in relation to these points. Information will be accurate and relevant.<p style="text-align: right;">8 – 10 marks</p></li></ul>	<b>10 marks</b>
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<p><b>8</b></p>	<p><b>(c)</b></p>	<p><i>Primary school children are often required to wear a cover-up garment for messy activities in school. In the space below, show an original design idea for a cover-up garment. It should be:</i></p> <ul style="list-style-type: none"> <li>• <i>appropriate for boys and girls</i></li> <li>• <i>suitable for children aged 5 – 7 years</i></li> <li>• <i>easy to care for</i></li> <li>• <i>inexpensive to manufacture.</i></li> </ul> <p><i>Annotate your design to show the fabric and features and explain why they are appropriate.</i></p> <p>The garment needs to be functional rather than highly decorative. It needs to be able to protect children’s clothing and be able to fit a wide range of sizes without the need for individual sizes being made. It should be easy to put on and take off. Labelling and annotation should explain how the design meets the criteria.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• Weak design which lacks clarity about the style, fabric and its appropriateness for the intended use. There will be a lack of information about the why the garment is suitable. 0 – 2 marks</li> <li>• Design is adequate and clearly shows a style which may not be the most appropriate or meet all the criteria. Information will be sufficient to indicate what is intended but there may be some areas which lack clarity. 3 – 5 marks</li> <li>• Clearly presented and explained design which meets all of the criteria and will be appropriate for intended market. There will be an attempt to show some originality. 6 – 8 marks</li> </ul>	<p><b>8 marks</b></p>
<p><b>8</b></p>	<p><b>(d)</b></p>	<p>What is meant by the term <i>risk assessment</i>?</p> <p>A study of the procedures, equipment and materials used (1 mark) To assess health and safety issues which need to be addressed (1 mark) Students should indicate that it is a study/awareness of what could go wrong, and how it might be put right/dealt with.</p>	<p><b>2 marks</b></p>

<b>8</b>	<p><b>(e)</b> <i>Identify <b>three</b> different health and safety risks related to the manufacture of the skirts shown on the insert sheet. Explain what precautions might be taken to minimise the risks.</i></p> <p>Some of the risks are given in the table below, but there may well be others which should be given credit if appropriate.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Area of manufacture (1 mark)</th> <th style="text-align: center;">Risk (1 mark)</th> <th style="text-align: center;">Precaution (1 mark)</th> </tr> </thead> <tbody> <tr> <td>Handling rolls of fabric</td> <td>Damage to feet</td> <td>Steel toe shoes</td> </tr> <tr> <td>Cutting fabrics</td> <td>Laceration</td> <td>Chain mail gloves</td> </tr> <tr> <td>Cutting fabrics</td> <td>Cutting cables leading to electrocution</td> <td>Cables come from ceiling</td> </tr> <tr> <td>Stitching garments together</td> <td>Laceration from needles, hair or clothing caught in machine</td> <td>Guards on machines, emergency stop buttons, hair tied back, wearing of overall.</td> </tr> <tr> <td>Pressing garments</td> <td>Burns from steam or hot equipment</td> <td>Use of computerised pressing equipment or resistant gloves</td> </tr> <tr> <td>Stitching garments</td> <td>Back injury</td> <td>Ergonomically designed chairs, adjustable chairs to allow for different heights of workers.</td> </tr> <tr> <td>Cutting / stitching</td> <td>Inhalation of fibres</td> <td>Use of face masks</td> </tr> <tr> <td>Stitching garments</td> <td>Broken needles or other sharp objects left in skirt</td> <td>Use of metal detectors</td> </tr> <tr> <td>Using machines</td> <td>Electrocution</td> <td>Regular checks on equipment by qualified electrician, cables kept well away from action of machine.</td> </tr> <tr> <td>Sewing buttons to belt</td> <td>Damage to eyes if button snaps</td> <td>Use of visor/goggles</td> </tr> <tr> <td>Sewing garments</td> <td>Damage to eye if needle breaks</td> <td>Use of protective glasses/goggles</td> </tr> <tr> <td>Using noisy machinery</td> <td>Damage to hearing</td> <td>Use of ear defenders</td> </tr> </tbody> </table> <p><b>Any 3 different areas, 3 marks each</b></p>	Area of manufacture (1 mark)	Risk (1 mark)	Precaution (1 mark)	Handling rolls of fabric	Damage to feet	Steel toe shoes	Cutting fabrics	Laceration	Chain mail gloves	Cutting fabrics	Cutting cables leading to electrocution	Cables come from ceiling	Stitching garments together	Laceration from needles, hair or clothing caught in machine	Guards on machines, emergency stop buttons, hair tied back, wearing of overall.	Pressing garments	Burns from steam or hot equipment	Use of computerised pressing equipment or resistant gloves	Stitching garments	Back injury	Ergonomically designed chairs, adjustable chairs to allow for different heights of workers.	Cutting / stitching	Inhalation of fibres	Use of face masks	Stitching garments	Broken needles or other sharp objects left in skirt	Use of metal detectors	Using machines	Electrocution	Regular checks on equipment by qualified electrician, cables kept well away from action of machine.	Sewing buttons to belt	Damage to eyes if button snaps	Use of visor/goggles	Sewing garments	Damage to eye if needle breaks	Use of protective glasses/goggles	Using noisy machinery	Damage to hearing	Use of ear defenders	<b>9 marks</b>
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8	(f)	<p><i>The skirts are sold at a budget price in a supermarket. Evaluate this popular method of retailing clothing products.</i></p> <p><b>Advantages</b> include: convenient one-stop shopping, available online, recognised brand so some assurance of quality, value for money, many supermarkets are using recognised designers for their own ranges, willingness of many supermarkets to refund money if needed, increased profits for retailer, attracts a wide range of shoppers.</p> <p><b>Drawbacks</b> include: possible reduction in quality, often limited range of styles, low prices often signal unethical manufacture, child might be bullied/young people may be embarrassed at wearing ‘supermarket’ brand, loss of specialist shops on high street, encourages throw-away attitudes.</p> <p><b>Marks awarded as follows:</b></p> <ul style="list-style-type: none"> <li>• Limited range of points, probably mostly related to cost issues and school uniform. There may be confused and inaccurate information with little real evaluation of the retail method. 0 – 2 marks</li> <li>• A number of relevant points but response will tend to concentrate on school uniform or other aspects, or only the advantages. There may be minor lack of clarity in parts but most points will be relevant. There will be reference to the method of retailing. 3 – 4 marks</li> <li>• Candidate shows sophisticated understanding of the issues involved and will go beyond the retailing of school uniforms. There will be good evaluation of this method of retailing with some perceptive comments made. 5 – 6 marks</li> </ul>	<b>6 marks</b>
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