

# Mark Scheme (Results) Summer 2008

GCSE

## GCSE Design & Technology: Textiles Technology (3971) Paper 2H

3971 2H Mark Scheme

Question Number	Answer	Mark
1 (a)(i)	<p><b>One point and reason from:</b>  <b>Market</b></p> <p><b>Point:</b> Appealing to the wearer.  <b>Reason:</b> Item must appeal to their needs and tastes.</p> <p><b>Point:</b> Unisex / fashionable colour  <b>Reason:</b> To appeal &amp; get market share</p> <p><b>Point:</b> Bright colour / reflective strips  <b>Reason:</b> To be seen in the rain/all weather conditions/the dark</p> <p><b>Point:</b> Suitable price  <b>Reason:</b> To suit the budget available</p> <p><b>Point:</b> Size  <b>Reason:</b> Available in different sizes for all ages</p> <p><b>Point:</b> Wipe clean  <b>Reason:</b> Easy to maintain</p> <p><b>Point:</b> Easy to get on and off  <b>Reason:</b> Need to put on quickly when the weather changes</p> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>
1 (a)(ii)	<p><b>Environmental</b></p> <p><b>Point:</b> Reduced obsolescence (<i>not a high fashion item</i>)  <b>Reason:</b> Can be handed down/reused</p> <p><b>Point:</b> Washed easily / washable at 30°C gentle wash/ no need to iron  <b>Reason:</b> Less energy used drying / ironing.</p> <p><b>Point:</b> Durable/hardwearing/ last a long time  <b>Reason:</b> Reduced amounts in landfill</p> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>

3 (a)(iii)	<p><b>(iii) Quality</b></p> <p><b>Point:</b> Well made (1) eg. stitching secure and accurate,/ edges finished accurately/appropriately, /pockets/zips secure.  <b>Reason:</b> Item worn by children so must be firmly stitched/components attached securely (1)</p> <p><b>Point:</b> Durable / hardwearing fabrics (1)  <b>Reason:</b> To withstand wear and tear / last a long time (1)</p> <p><b>Point:</b> Waterproof / resistant fabrics (1)  <b>Reason:</b> To protect the wearer from rain (1)</p> <p><b>Point:</b> Lightweight (1)  <b>Reason:</b> Easy to carry around /comfortable to wear (1)</p> <p><b>Point:</b> Good quality components (zip) (1)  <b>Reason:</b> To withstand wear and tear. (1)</p> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>
1 (b)(i)	<p><b>Two reasons given from:</b></p> <ul style="list-style-type: none"> <li>• Shower proof/water resistant (1) (<i>do not accept waterproof</i>)</li> <li>• Wind resistant (1)</li> <li>• Easily washed / drip dried / dries quickly(1)</li> <li>• Can pack up small (1)</li> <li>• Strong / hardwearing / durable (1)</li> <li>• Flame resistant (1)</li> <li>• Warm to wear (1)</li> <li>• Not expensive (1)</li> <li>• Lightweight (1)</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>
1_b (ii)	<p><b>Two reasons given from:</b></p> <ul style="list-style-type: none"> <li>• Still looks presentable / uncreased when removed from the bag (1)</li> <li>• Doesn't need ironing (1)</li> <li>• Doesn't need secondary finishing (1)</li> <li>• Makes it easier to care for</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>

<p><b>1 (c)</b></p>	<p><b>Two properties with reasons from:</b></p> <p><b>Property:</b> Good insulation/warm/fluffy  <b>Reason:</b> Keeps wearer warmer as raised fibres trap air.</p> <p><b>Property:</b> Easily washable /by machine  <b>Reason:</b> Frequent washing required due to item getting dirty.</p> <p><b>Property:</b> Soft/comfortable to wear  <b>Reason:</b> Will not be uncomfortable / irritable / wearers will want to wear it</p> <p><b>Property:</b> Absorbent  <b>Reason:</b> Will absorb perspiration when playing</p> <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: right;"><b>(2)</b></p>
<p><b>1 (d)</b></p>	<p><b>Two checks named from:</b></p> <ul style="list-style-type: none"> <li>• After cutting to check sizes within tolerances (1)</li> <li>• Tolerance levels for seam widths (1)</li> <li>• Stitching quality (1)</li> <li>• Zips are straight / works correctly (1)</li> <li>• Elasticated wristbands the same width (1)</li> <li>• Reflective strips the same width (1)</li> <li>• Lining not twisted (1)</li> <li>• Check for inclusion of care label (1)</li> <li>• No loose components (1)</li> <li>• Position / size of logo (1)</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: right;"><b>(2)</b></p>
<p><b>1 (e)</b></p>	<p><b>One reason described from:</b></p> <ul style="list-style-type: none"> <li>• Only one colour / one screen needed therefore economical to produce</li> <li>• Simple pattern so easy to produce the stencil on the screen.</li> <li>• Easy to achieve a consistent professional finish so good quality product manufactured</li> <li>• Easily programmed so quick / cheaper / less effort to produce in batches</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: right;"><b>(2)</b></p>
<p><b>1 (f)(i)</b></p>	<p><b>One example explained of how each purpose is achieved from:</b></p> <p><b>(i) Be seen in the dark</b></p> <ul style="list-style-type: none"> <li>• Reflective strips will be picked out by lights in darkness</li> <li>• Bright yellow colour will reflect / shine if lights hit it</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: right;"><b>(2)</b></p>

1 f(ii)	<p>Be able to fit into a small bag for carrying</p> <ul style="list-style-type: none"> <li>• Light weight / thin fabric so easy to fold up / make smaller and fit into bag.</li> <li>• Flexible components so easy to fold up and fit into bag</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>
	<b>Total for question</b>	<b>22</b>

Question Number	Answer	Mark										
Q2 (a)	<p><b>One example for each type of finish from:</b></p> <table border="1"> <thead> <tr> <th>Type of Finish</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>Chemical</td> <td>           Crease resistance            Stain resistance            Bleaching            Mercerizing            Flame resist            Water repellent /proof            Anti-static            Shrink resist         </td> </tr> <tr> <td>Biological</td> <td>           Biostoning            Biopolishing         </td> </tr> <tr> <td>Resist Dyeing</td> <td>           Tye-dye            Batik            Tritik            Silk painting         </td> </tr> <tr> <td>Printing</td> <td>           Block printing            Transfer printing            Roller printing            Screen printing            Digital printing / DDP            Laser printing         </td> </tr> </tbody> </table>	Type of Finish	Example	Chemical	Crease resistance Stain resistance Bleaching Mercerizing Flame resist Water repellent /proof Anti-static Shrink resist	Biological	Biostoning Biopolishing	Resist Dyeing	Tye-dye Batik Tritik Silk painting	Printing	Block printing Transfer printing Roller printing Screen printing Digital printing / DDP Laser printing	(4)
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Q2(b)

Three stages from either:

**Bondaweb process**

- Fabric pieces backed with bondaweb / vilene
- Designs cut out
- Remove backing paper
- Ironed onto item.
- Satin / zigzag machine stitch used to secure to backing fabric and neaten raw edges.



fabric pieces backed with bondaweb on WS.



Design cut out + ironed onto garment.



Satin zig-zag stitch used to secure to main fabric + neaten raw edges.

or

**Felt process**

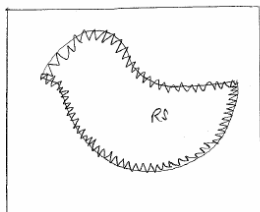
- Designs cut out
- Tacked onto garment.
- Satin / zigzag machine stitch used to secure to backing fabric and neaten raw edges.



Design cut out



Tacked onto garment



Satin stitch used to secure to main fabric

(3)

Q2 (c)	<p>Two ways explained from:</p> <ul style="list-style-type: none"> <li>• Clip-art libraries/internet used for researching ideas.</li> <li>• Digital cameras used for local research / picture transfer.</li> <li>• Initial research ideas are then refined and developed for final idea using Microsoft applications or CAD.</li> <li>• Use of e-mail/video conferencing/web cam/PDA/Blackberry/podcasts/web based messaging/messenger/ mobile phone to communicate.</li> </ul> <p style="text-align: right;">(2 x 1) (2 x 1)</p>	<b>(4)</b>
<b>Total for question</b>		<b>11</b>



Question Number	Answer	Mark
3(a)(i)	<p><b>One cellulosic fibre from: (accept both generic &amp; trade names)</b></p> <ul style="list-style-type: none"> <li>• Viscose (1)</li> <li>• Acetate (1)</li> <li>• Triacetate (1)</li> <li>• Lyocell (1)</li> <li>• Tencel (1)</li> <li>• Tricell (1)</li> <li>• Rayon (1)</li> <li>• Dicell (1)</li> </ul> <p style="text-align: right;">(1 x 1)</p>	<b>(1)</b>
3(a)(ii)	<p><b>One synthetic fibre from: (accept both generic &amp; trade names)</b></p> <ul style="list-style-type: none"> <li>• Polyamide (1)</li> <li>• Polyester (1)</li> <li>• Acrylic/Acrilan (1)</li> <li>• Elastane (1)</li> <li>• Aramid (1)</li> <li>• Kevlar (1)</li> <li>• Nylon (1)</li> <li>• Trevira (1)</li> <li>• Draylon (1)</li> <li>• Lycra (1)</li> </ul> <p style="text-align: right;">(1 x 1)</p>	<b>(1)</b>
3(b)(i)	<p><b>Description of appearance of crimped yarns from:</b></p> <ul style="list-style-type: none"> <li>• <b>Thicker</b> because there are air spaces between the fibres.</li> <li>• <b>Not straight</b> in that the fibres are always wavy.</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>
3(b)(ii)	<p><b>Three changes from:</b></p> <ul style="list-style-type: none"> <li>• Softer (1) (<i>Do not accept fluffy</i>)</li> <li>• Greater absorbency (1)</li> <li>• Thicker / bulkier (1)</li> <li>• Stretch and recover (1)</li> </ul> <p style="text-align: right;">(3 x 1)</p>	<b>(3)</b>

3 (c)	<p><b>Four properties of felted fabrics from:</b></p> <ul style="list-style-type: none"> <li>• Do not fray (1)</li> <li>• Stiff / do not drape well (1)</li> <li>• Distorted by stretching (1)</li> <li>• Not elastic or pliable/no stretch (1)</li> <li>• Good insulators/warm feel (1)</li> <li>• Give stability (1)</li> <li>• Not strong (1)</li> <li>• Not stable/falls apart if pulled (1)</li> <li>• Can be moulded/set into shapes (1)</li> <li>• Soft (1)</li> </ul> <p style="text-align: right;">(4 x 1)</p>	<b>(4)</b>
	<b>Total for question</b>	<b>11</b>
	<b>Total for paper</b>	<b>44</b>