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Mark Scheme (Results)
Summer 2008

GCSE

GCSE Design & Technology:
Textiles Technology (1971) Paper 2H

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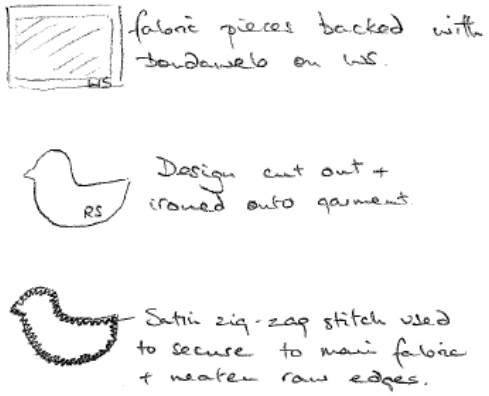
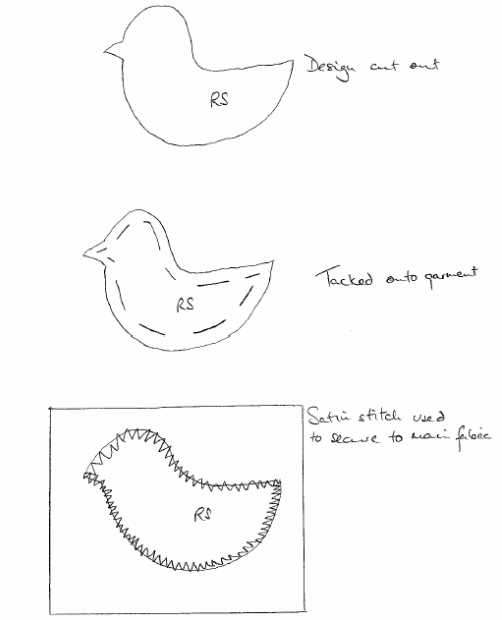
1971 2H Mark Scheme

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

1 (a)(iii)	**Quality** **Point:** Well made eg. stitching secure and accurate,/ edges finished accurately/appropriately, /pockets/zips secure. **Reason:** Item worn by children so must be firmly stitched/components attached securely **Point:** Durable / hardwearing fabrics **Reason:** To withstand wear and tear / last a long time **Point:** Waterproof / resistant fabrics **Reason:** To protect the wearer from rain **Point:** Lightweight **Reason:** Easy to carry around /comfortable to wear **Point:** Good quality components (zip) **Reason:** To withstand wear and tear. (2 x 1)	**(2)**
1 (b)(i)	**Two reasons given from:** • Shower proof/water resistant (1) *(do not accept waterproof)* • Wind resistant (1) • Easily washed / drip dried / dries quickly(1) • Can pack up small (1) • Strong / hardwearing / durable (1) • Flame resistant (1) • Warm to wear (1) • Not expensive (1) • Lightweight (1) (2 x 1)	**(2)**
1 (b)(ii)	**Two reasons given from:** • Still looks presentable / uncreased when removed from the bag (1) • Doesn't need ironing (1) • Doesn't need secondary finishing (1) • Makes it easier to care for (1) (2 x 1)	**(2)**

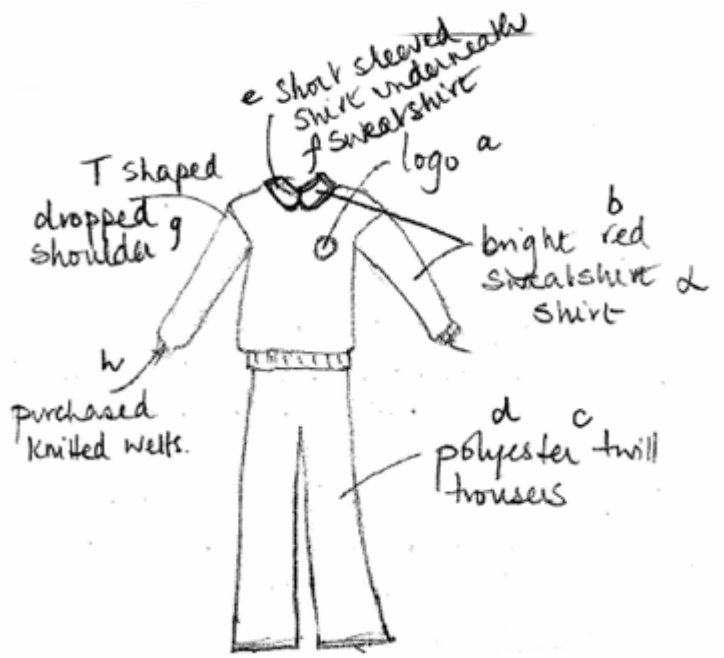
1 (c)	**Two properties with reasons from:** **Property:** Good insulation/warm/fluffy **Reason:** Keeps wearer warmer as raised fibres trap air. **Property:** Easily washable /by machine **Reason:** Frequent washing required due to item getting dirty. **Property:** Soft/comfortable to wear **Reason:** Will not be uncomfortable / irritable / wearers will want to wear it **Property:** Absorbent **Reason:** Will absorb perspiration when playing (2 x 1)	**(2)**
1 (d)	**Two checks named from:** • After cutting to check sizes within tolerances (1) • Tolerance levels for seam widths (1) • Stitching quality (1) • Zips are straight / works correctly (1) • Elasticated wristbands the same width (1) • Reflective strips the same width (1) • Lining not twisted (1) • Check for inclusion of care label (1) • No loose components (1) • Position / size of logo (1) (2 x 1)	**(2)**
1 (e)	**One reason described from:** • **Only one colour / one screen needed** therefore **economical to produce** • **Simple pattern** so **easy to produce the stencil on the screen.** • **Easy to achieve a consistent professional finish** so **good quality product** manufactured • **Easily programmed** so **quick / cheaper / less effort** to produce in batches (2 x 1)	**(2)**
1 (f)	**One example explained of how each purpose is achieved from:** **(i) Be seen in the dark** • **Reflective strips** will be picked out by **lights in darkness** • **Bright yellow colour** will **reflect / shine if lights hit it** (2 x 1) **(ii) Be able to fit into a small bag for carrying** • **Light weight / thin fabric** so **easy to fold up / make smaller** and fit into bag. • **Flexible components** so **easy to fold up** and fit into bag (2 x 1)	**(2)** **(2)**
	Total for question	**22**

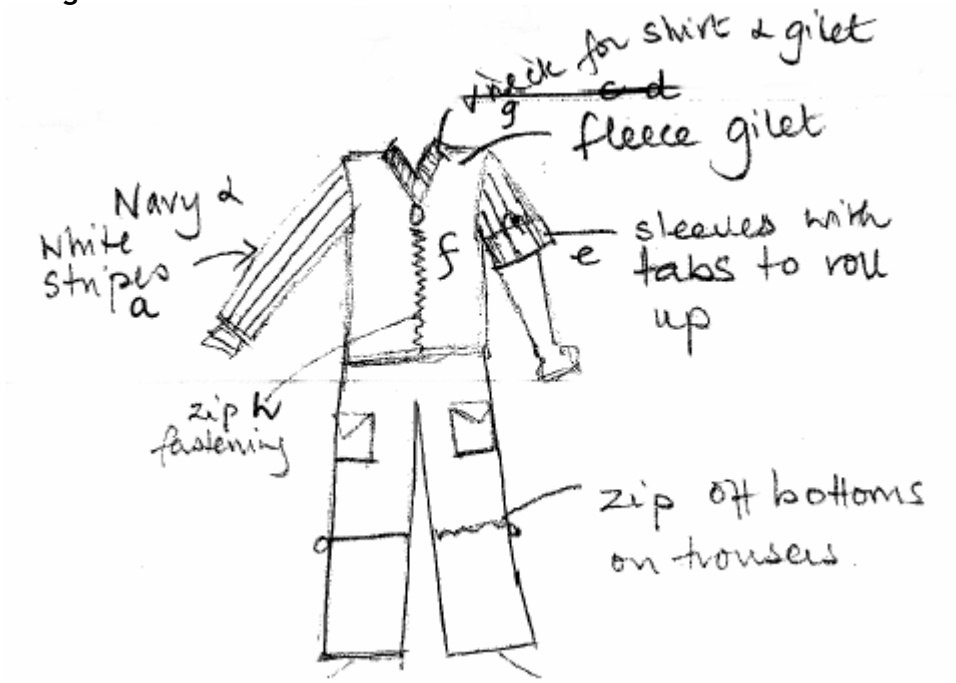
<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>Q2 (a)</td><td>One example for each type of finish from:
<table>
<tr><th>Type of Finish</th><th>Example</th></tr>
<tr><td>Chemical</td><td>Crease resistance
Stain resistance
Bleaching
Mercerizing
Flame resist
Water repellent /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>
</table>
(4 X 1)</td><td>(4)</td></tr>
</table>

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.  or **Felt process** • Designs cut out • Tacked onto garment. • Satin / zigzag machine stitch used to secure to backing fabric and neaten raw edges.  (3 x 1)	**(3)**

Q2 (c)	**Two ways explained from:** • **Clip-art libraries/internet** used for **researching ideas.** • **Digital cameras** used for **local research / picture transfer.** • **Initial research ideas** are then **refined and developed for final idea using Microsoft applications or CAD.** • Use of **e-mail/video conferencing/web cam/PDA/Blackberry/podcasts/web based messaging/ messenger/ mobile phone** to **communicate.** (4 x1)	**(4)**
Q2 (d)(i)	**One feature given from:** • Comparatively inexpensive / cheaper (do not accept inexpensive/cheap) (1) • All identical (1) • Available in standard sizes (1) • Fixed number made (1) (1 x 1)	**(1)**
Q2 (d)(ii)	**Two named from:** • Just In Time (JIT) (1) • Progress bundle system (1) • Straight line system (1) • Sectional system (1) • Make-through system (1) (2 x 1)	**(2)**
Q2 (e)(i)	**One reason explained from:** **3D modelling on screen in CAD systems** • **Creates 3D virtual products / shows the design** on screen to give a **life-like image / check client approves** • Images can be **manipulated/altered** during design work **on screen** • **Colours / patterns / textures / drapes** can be **changed to assess the look / show clients** • **Cheaper** to change an image than **make a prototype item.** (2 x 1)	**(2)**

Q2 (e)(ii)	**One reason explained from:** **Using CAM to cut fabrics** • **Improves accuracy** therefore **reduces waste / reduces faults / reduces human error.** • Computerized cutting **will allow several layers** to be cut at the same time **reducing manufacturing time / reducing costs** • **Increased speed** means items are made **more quickly** for the market place • **Safer** as blade operated **by computer rather than person.** (2 x 1)	**(2)**
Q2 (f)	**Two descriptions in which EPOS tills help from:** • Used to **record information about sales** to **inform stock control / trigger reordering** • **Price changes** from the manufacturer **are automatically recorded** • **Returned items** from customers **automatically checked back into stock** • **Availability of stock** can be checked **to satisfy customer's inquiry** • **Monitoring of sales / demand** can be used to **indicate popularity of products** (4 x 1)	**(4)**
	Total for question	**22**

Question Number	Answer	Mark
3 (a)	**Design idea 1**  **Design responses** • **Make pupils clearly identifiable to their school using two different features** e.g Use of logo/badge/embroidery/school colours/school tie e.g Must have a school name/emblem or colour justified. • **Be durable and easily cared for** e.g. Durable fabric annotated e.g. Polyester, acrylic e.g. Washable/ quick drying/ non-iron fabrics annotated • **Be suitable for summer and winter wear** e.g. Summer: Layers that can be removed/absorbent fabrics/protection from UV/ fastenings that can be undone / short sleeves e.g. Winter: Layers/ Insulating fabrics/ Long sleeves/ fastenings that can be done up to neck • **Be easily suitable for batch production** e.g. Evidence that design is suitable for batch production e.g. notes, simple design/features no hand decoration etc. e.g. CAM could be used for distinguishing feature.	**(8)**

	Design idea 2  To score a mark for Design Idea 2, each specification point must be resolved again in the second design idea but the second design idea **must be technically/conceptually different in design and construction** from the first and not a simple variation on a theme to score the mark. Use exactly the same criteria as design idea 1 to mark design idea 2. • A different method of showing school identity (1) • A different choice of school name/emblem (1) • A different choice of durable fabric (1) • A different choice of easily cared for fabric (1) • A different choice of summer wear (1) • A different choice of winter wear (1) • A different reason of suitability for being batch produced (1) • A different reason of suitability for batch produced (1)	**(8)**
3 (b)(i)	**Evaluation of : How the uniform makes pupils clearly identifiable to their school using two different methods:** Comments (positive or negative)on: • Methods of identification e.g. Type of logo/emblem/decoration/school colourway chosen (2 x 1)	**(2)**
3 (b)(ii)	**Evaluation of : How the uniform is durable and easily cared for:** Comments (positive or negative)on: • type of suitable durable fabric chosen e.g. comments on fabric properties • how it is easily cared for e.g. comments on how washed, dried or ironed. (2 x 1)	**(2)**

3 (b)(iii)	**Evaluation of : How the uniform is suitable for summer and winter wear:** Comments (positive or negative)on: • Summer wear: type of fabric chosen- e.g. lightweight cotton, seersucker, gingham, knitted cotton. Absorbent, how layers could be removed, how fastenings could be altered. How uniform can be adapted. • Winter wear: type of fabric chosen- e.g. fleece, brushed knitted cotton. Warm, how layers could be added, how fastenings could be altered. How uniform can be adapted. (2 x 1)	**(2)**
	Total for question	**22**

1971 Mark Scheme

Question Number	Answer	Mark
4 (a)(i)	**One cellulosic fibre from:** *(accept both generic & trade names)* • Viscose (1) • Acetate (1) • Triacetate (1) • Lyocell (1) • Tencel (1) • Tricell (1) • Rayon (1) • Dicell (1) (1 x 1)	**(1)**
4 (a)(ii)	**One synthetic fibre from:** *(accept both generic & trade names)* • Polyamide (1) • Polyester (1) • Acrylic/Acrilan (1) • Elastane (1) • Aramid (1) • Kevlar (1) • Nylon (1) • Trevira (1) • Draylon (1) • Lycra (1) (1 x 1)	**(1)**
4 (b)(i)	**Description of appearance of crimped yarns from:** • **Thicker** because there **are air spaces between the fibres.** • **Not straight** in that the fibres are **always wavy.** (2 x 1)	**(2)**
4 (b)(ii)	**Three changes from:** • Softer (1) *(Do not accept fluffy)* • Greater absorbency (1) • Thicker / bulkier (1) • Stretch and recover (1) (3 x 1)	**(3)**

4 (c)	**Four properties of felted fabrics from:** • Do not fray (1) • Stiff / do not drape well (1) • Distorted by stretching (1) • Not elastic or pliable/no stretch (1) • Good insulators/warm feel (1) • Give stability (1) • Not strong (1) • Not stable/falls apart if pulled (1) • Can be moulded/set into shapes (1) • Soft (1) (4 x 1)	**(4)**
4 (d)(i)	**One description of how a manufacturer could use recycled materials from:** • **Turn fabrics back into fibres** to re-emerge as **new fabrics or cleaning cloths.** • Turn **plastic bottles** into **fleece fabric.** (2 x 1)	**(2)**
4 (d)(ii)	**One description of how a consumer could recycle from:** • **Give clothes to charity shops/recycling bins/collection bags** as these go to **countries in need of economic help.** • **Give to friends & relatives/ sell on e-bay** as others **enjoy what you are bored of.** • **Re-use** out-of-fashion clothes by **customising** e.g. adding ribbon or new buttons/ making into cushions etc. • **Unravel knits** and **re-knit** • **Re-using components** e.g. zips / buttons etc. **for new textiles products.** (2 x 1)	**(2)**
4 (e)	**Three reasons from:** • Consumer has confidence in the product (1) • Consumer knows it has been tested by a reputable body (1) • It shows their product has reached safety standards (1) • Guaranteed quality (1) • BSI is reputable agency who monitor/enforce safety legislation (1) (3 x 1)	**(3)**

4 (f)	**Two ways in which environmental damage caused by burning these fuels can be reduced from:** • **Emissions need to be cleaned up** before being released into the atmosphere by **fitting scrubbers to chimney stacks** • **Fuel burning equipment needs to be modified** to make sure **no particles are released into the atmosphere / reduce the amount of carbon dioxide released into the atmosphere.** • **Boilers should be computerized** to make **the burn process more efficient .** • **Consume less fuel** by **reducing long distance transportation.** • **Use alternative technologies** such as **water / wind power / geotechnologies / hot rocks / solar .** • **Use energy saving lightbulbs/switch off lights** to reduce **fuel consumption** (4 x 1)	**(4)**
	Total for question	**22**
	Total for paper	**88**