# Design \& Technology (Textiles Technology) 

General Certificate of Secondary Education GCSE 1958
General Certificate of Secondary Education (Short Course) GCSE 1058

## Mark Schemes for the Components

## June 2008

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## 1058/01, 1958/01 Paper 1 (Foundation)

1 (a) One mark for naming the fastening, one mark for the use.

- Hook/clip (and eye/bar) - waistband of skirt or trousers, top of a zip, front or back of a bodice, on a bra.
- Press stud/popper/ginger snap/pop buttons/pop-ons - cuff, front of a coat, waistband.
- Zip - front of a coat, trousers, jeans, skirt, pencil case, toilet bag, make-up bag.

Do not credit repeats of products.
NOT
Just 'garment'/clothes.
(b) One mark for name of each stitch.

- Straight stitch/running stitch
- Zig-zag stitch.

NOT
Cross stitch, plain stitch.
(c) One mark for each point.

- Cost
- Weight/ease of movement/size
- Ease of use/set up/know how to use it
- Stitches/features/embroidery/adjustable stitch/functions
- Guarantee/reputable retailer
- Make/model/brand/type
- Speed
- Free arm style
- How many reels of thread it will hold
- Good quality/good condition
- Instructions provided
- Check for damage/no broken parts/pieces missing/check for faults/check works
- Computer controlled/automatic/battery/mains/overlocker/industrial
- Spare needles/attachments/bobbin/feet/has all pieces needed
- Safety marks/PAT tested/safe to use
- Recommendation
- Good quality stitch.

NOT
To do with using the machine
Power relating
Fit for purpose
'Sew fabric' you have
Light

2 (a) Any six correct points, one mark each. Credit answer in any box.

- Wash/clean fabric
- Dampen fabric
- Prepare dye/sort/choose colours
- Cut to size/shape
- Beads/stones/buttons
- Elastic bands/thread/string
- Twist/scrunch/pleat/fold/method of folding
- Tie very tightly/where don't want dye
- Make dye bath/add mordant/fixer/salt/follow instructions/microwave
- Place in dye
- Allocated time/state time
- Rinse off excess dye
- Allow to dry
- Untie
- Iron

NOT
Leave in die bath until ready
Suggestion of fabric to use
(b) Any two points, one mark each.

- Follow instructions/COSHH/mixed correctly
- Keep in original container/correctly labelled
- Wear protective clothing - gloves/goggles/apron/mask - protect skin/eyes
- Secure storage/locked away/out of children's reach
- Wash hands after use/if gets on skin wash immediately
- Secure lid /not leaking
- Store at appropriate temperature/cool temperature

NOT
'Just suitable clothing'
Tie hair back
Stored in a high place
(c) Any two, one mark each.

- Scissors
- Iron/ironing board
- Pins
- Needle
- Tailors pencil/tailors chalk/temporary marking pen
- Tape measure/ruler
- Overlocker
- Unpicker

NOT
Embroidery machine
Pattern pieces
Stencil
Pre-manufactured standard components
Thimble

3 (a) Any three, one mark each.

- Current fashion trends/styles/what appeals to teenagers/width of belt
- Anthropometric data/sizes of target market
- Preferred colours
- Fabrics available/components/preferred fabrics/preferred fastenings
- Tools and equipment available
- Skills of workers
- Existing products available/product analysis
- Costs/price range
- Aimed at boys/girls/unisex

NOT
Suitable for target market
Gather the information
'What would it look like'
Design specification
Age range
Decorative or construction methods
(b) Any five points, drawn or labelled Marks are for decorative techniques not the decorative design Printing and embroidery must be qualified

- $\quad$ - Colour must be named or shown
- $\quad$ SZ - Size/measurements/length of belt/width of belt
- A - Adjustable/elasticated sections or inserts / eyelets
- FS - Fastening
- $\quad \mathrm{V}$ - More than one view shown
- $\quad \mathrm{CM}$ - Construction methods - up to two marks, top stitching, loop to hold end of belt, strengthening or two layers of fabric, button holes
- DT - Decorative methods - up to two marks bows, sequins, beads, shisha mirrors, glued - gems/diamonte/glitter, studs, frayed edges and usual decorative methods
- FF - Fibre/fabric suggested other than denim in decoration or construction
- $\quad \mathrm{U}$ - Unisex - must be qualified

NOT
Just holes
Tears
(c) Any two, one mark each.

- Magazines/newspapers/catalogues
- TV/commercial/advert
- Billboards
- Fashion shows/catwalks/model it
- Window displays/in store display
- Flyers/leaflets/posters
- Celebrity endorsement
- Website/internet
- Plasma screen/school/big screens/shops

4 (a) Any four points, one mark each.

- Design can be sent straight to the printing machine/manufacture
- Colourways can be easily tried
- Repeat designs can be produced by cutting and pasting/pattern easily repeated
- Can be e-mailed to customers
- Flip/rotate designs
- Map onto products
- Edit easily/quicker to edit/edit easily/change shape/add to it/developed/re-use
- More accurate/made the same/identical/neat and professional/reduces human error/neat/measurements accurate
- Easy to save and store
- Mock-ups can be easily made - eg transfer printing
- Use of scanners and digital cameras
- Produce lots of the same design/produce lots of times/variety of matching items
- Option/tools on screen/features
- Can see 3D design
- Size/scale up and down
- Can produce more detailed/complex designs
- Library data base of designs

NOT
Quick
Easy
Reduce waste
Less labour intensive/fewer workers/cheaper
Can see what final design looks like
24/7 production
Print on any sort of material
Not just 'sent'
(b) Any two points, one mark each.

- Comfortable sitting position/correct height/straight back
- Correct distance from screen/not too close to screen
- Regular breaks - max 40 minutes in any hour. Look at something else/don't look at screen for too long
- Wrist supports to prevent RSI
- Feet - support
- No food and drink near it
- Electrical safety checks/no cut or frayed wires/no loose plugs/check green sticker
- Correct lighting
- Correct temperature and ventilation
- No trailing wires/wires out of way/tube to hold wires
- Reference to hygiene/wash hands
- Epilepsy/mesh screen


## NOT

Don't unplug wires
Touch loose wires
Loose clothing or hair
Stay away while printing
Wet hands
Reference to fixing it
Stable on work surface
Training
(c) Any four points, one mark each.

- Copper rollers
- Engraves so that the design stands up/background lower/carried into/embossed/cut into
- One roller per colour/several roller
- Maximum repeat is circumference of roller
- Roller coated with dye/rolled through dye bath
- Roll roller over fabric/between two rollers
- Fix dye onto fabric
- Continues process

NOT
Reasons why used
Rotary screen printing
Dye pushed through roller
Not drying
Stencil / roller filled with dye
Design put on roller without saying how
Not fabric stretched out flat

5 (a) Any three points, one mark each.

- Knitted fabrics are stretchy - hat will fit well/allow just stretchy
- Knitted fabrics are warm to wear due to the looped structure/allow just warm/insulates
- Decorative patterns can be worked into the fabric
- Wool fibres are warm to wear due to the scales on their surface
- Wool fibres are resilient - they don't crease
- Wool fibres are natural - renewable resource/environmentally friendly
- Wool fibres will resist water - droplets sit on the surface and can be shaken off
- Wool fibres can absorb a large amount of water without feeling wet or becoming heavy/absorbent
- Soft/comfortable/doesn't irritate/allows head to breathe/permeable
- Dyes easily/range of colours available

NOT
Fashionable/attractive
Drapes well
Easy to sew
Not breathable
Dries quickly
Lightweight
Protect head from wind
Easy to wash
Durable etc
Cheap to buy
Not keeping shape
Waterproof
(b) One mark for a shallow explanation, two if more detailed.

Answers could include the following points.

- Stitches and neatens in one action, so quick to manufacture/simple to do
- Seam stretches with the fabric so unlikely to break/threads snap
- Secure and will help prevent the fabric unravelling/prevents fraying/neatens
- Seam will be flat and so comfortable to wear/encloses edges so doesn't irritate
- Hardwearing/makes it last longer/stronger/durable

NOT
Looks neater
(c) Any two points, one mark each.

- Doesn't fade
- Acrylic fibres are less expensive/cheaper
- Easier to wash than wool fibres/doesn't bobble/doesn't shrink/machine washable/dries quicker/less absorbent
- (Almost as) warm as wool fibres/warm
- May be less irritating than wool fibres /allergies
- Keep shape well
- More durable/lasts longer/stronger
- Not attacked by moths
- Lightweight


## NOT

Waterproof
Synthetic so won't run out
Easier to find and produce
Water resistant
Fire resistant
Easier to sew and make
Better quality
More attractive
More stretch
(d) Any three points, one mark each.

- Make more colourful/bright colours/bold/named colour
- Add tassels
- Add pom poms/bobbles
- Ear flaps/peak/extension on back of neck
- Tie to hold it in place on head
- Reduce size/adjustable size
- Add motif/logo/pictures/shape/design/make into character/removable Velcro features/technique
- Add stripes/add a pattern
- Add fleece lining/add textured fabrics/inner lining
- Make plainer/reduce decorative texture
- Add knitting pattern eg fair isle
- Make reversible/different colour turn up
- Add pre-manufactured components egbells,buttons,sequins,beads etc/googly eyes
- Method of attaching to clothing
- Reflective strips for safety


## NOT

Waterproof
Questions
Unisex

## 1058/02, 1958/02 Paper 2 (Higher)

1 (a) Any four points, one mark each.

- Design can be sent straight to the printing machine/manufacture
- Colourways can be easily tried
- Repeat designs can be produced by cutting and pasting/pattern easily repeated
- Can be e-mailed to customers
- Flip/rotate designs
- Map onto products
- Edit easily/quicker to edit/edit easily/change shape/add to it/developed/re-use
- More accurate/made the same/identical/neat and professional/reduces human error/neat/measurements accurate
- Easy to save and store
- Mock-ups can be easily made - eg transfer printing
- Use of scanners and digital cameras
- Produce lots of the same design/produce lots of times/variety of matching items
- Option/tools on screen/features
- Can see 3D design
- Size/scale up and down
- Can produce more detailed/complex designs
- Library data base of designs

NOT
Quick
Easy
Reduce waste
Less labour intensive/fewer workers/cheaper
Can see what final design looks like
24/7 production
Print on any sort of material
Not just 'sent'
(b) Any two points, one mark each.

- Comfortable sitting position/correct height/straight back
- Correct distance from screen/not too close to screen
- Regular breaks - max 40 minutes in any hour. Look at something else/don't look at screen for too long
- Wrist supports to prevent RSI
- Feet - support
- No food and drink near it
- Electrical safety checks/no cut or frayed wires/no loose plugs/check green sticker
- Correct lighting
- Correct temperature and ventilation
- No trailing wires/wires out of way/tube to hold wires
- Reference to hygiene/wash hands
- Epilepsy/mesh screen


## NOT

Don't unplug wires
Touch loose wires
Loose clothing or hair
Stay away while printing
Wet hands
Reference to fixing it
Stable on work surface
Training
(c) Any four points, one mark each.

- Copper rollers
- Engraves so that the design stands up/background lower/carried into/embossed/cut into
- One roller per colour/several roller
- Maximum repeat is circumference of roller
- Roller coated with dye/rolled through dye bath
- Roll roller over fabric/between two rollers
- Fix dye onto fabric
- Continues process

NOT
Reasons why used
Rotary screen printing
Dye pushed through roller Not drying
Stencil/ roller filled with dye
Design put on roller without saying how
Not fabric stretched out flat

2 (a) Any three points, one mark each.

- Knitted fabrics are stretchy - hat will fit well/allow just stretchy
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- Wool fibres are resilient - they don't crease
- Wool fibres are natural - renewable resource/environmentally friendly
- Wool fibres will resist water - droplets sit on the surface and can be shaken off
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- Soft/comfortable/doesn't irritate/allows head to breathe/permeable
- Dyes easily/range of colours available

NOT
Fashionable/attractive
Drapes well
Easy to sew
Not breathable
Dries quickly
Lightweight
Protect head from wind
Easy to wash
Durable etc
Cheap to buy
Not keeping shape
Waterproof
(b) One mark for a shallow explanation, two if more detailed.

Answers could include the following points.

- Stitches and neatens in one action, so quick to manufacture/simple to do
- Seam stretches with the fabric so unlikely to break/threads snap
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Synthetic so won't run out
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Water resistant
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- Add pre-manufactured components egbells,buttons,sequins,beads etc/googly eyes
- Method of attaching to clothing
- Reflective strips for safety


## NOT

Waterproof
Questions
Unisex

3 (a) Any six points, one mark each or two where indicated.

- FS- Fastening
- C-Colours-specified/patterned fabric
- L-Logo to indicate corporate identity/name tag
- P-Pockets/pouch
- S-Indication of seams
- D-Disposal of fullness
- H-Hems/edge finishes/collar/cuff/ribbing
- DT-Decorative techniques
- SZ-Size/measurements
- HC-Hat or cap
- A-Apron/protective garments
- U-Unisex-must be qualified
- E-Indication of why it is economical to manufacture
- FF-fibre or fabric mentioned
- F-Finish-flame retardant/stain resistant

If no annotation- maximum of 5 marks
(b) One mark for a shallow explanation, two for a detailed one. Mix and match responses

- Making a prototype allows planning, use of resources, equipment
- Mistakes can be rectified to ensure a quality product, saves time and money
- Can check customer reactions and adapt accordingly/check suits the café workers
- Check fit, that design works
- Avoids wasting time and resources
- Check the skills of the workforce are suitable
- Costing can be calculated
- To see what the design looks like-modify/improved/change
- Test manufacturing processes-check best ones are being used/modify/improve
- Can test the uniform-give a check made eg comfort/fit
- Calculate amount of fabric / components needed

NOT
Testing fabrics

4 (a) Any four points, one mark each. Credit written responses as well as the diagram.

- B - Back piece on fold / opened out mirrored
- S - Straight grain arrows aligned / parallel to selvedge
- D - Double fabric / shown on diagram / annotated
- C - Collar re-positioned to cut 2 on fold / opened cut and mirrored
- P - Pockets re-positioned
- $\quad \mathrm{N}$ - All pieces running the same way - nap
- E-Economical use of fabric / pieces close together/saving fabric/not wasting fabric/fabric could be used for something else
(b) Any 6 points in a logical order, can be in note or diagram form.
- Place fabrics RS together
- Pin and tack along seam line / fold in seam allowance
- Press seam open and neaten edges
- Place zip RS down on seam / folded edge next to teeth
- Pin / tack in place
- Straight stitch / slightly longer
- Use zipper foot, adjust needle position if necessary
- Move slider on zip if necessary
- Stitch along each side of zip / reverse at ends
- Remove tacking holding seam together
- Check zip works / test zip
- Edges of garment are level
- Cut loose threads and press


## DO NOT ACCEPT

Bar tack

5 (a) Points must be explained not just listed. Answers could include the following points, one mark each.
If not explained link 2 points together for a mark, up to maximum of 3.

- Eye catching to attract customer eg use of colour / brand logo
- Must protect the product - in transit, when being handled, may be delicate fabrics.
- What is the nature of the product to be packaged? The packaging must be suitable for the product.
- Does the consumer need to be able to see or handle the product?
- Will the product need to be tried on? How will this affect the packaging.
- Inform the consumer about the product - eg fibre content, precautions, special treatments and washing instructions, flammability, company name, size, age range, measurements, colour range.
- Promote/advertise the product - easy identification, company and brand names.
- Eco-friendly the packaging should be recycled and/or biodegradable.
- High quality goods need high quality packaging.
- May need to use reusable packaging to appeal to those who want to protect the environment.
- Use recycled materials or sustainable resources.
- Cost of production for the manufacturer.
- $\quad$ Shape of packaging - ease of transport/packing into boxes and crates for transport.
- $\quad$ Safety issues - young children / plastic bags, small parts.
- Easy to remove, but not fall off.
- Lightweight - easy for customer to carry home / reduce transport costs.
- $\quad$ Same packaging for a range of products - encourage customers to buy more. Identifies product range.
- Reduce the amount of packaging used/using the least amount possible for either environmental / cost reasons
(b) Any four points explained, one mark each.

If not explained link 2 points together for a mark, up to maximum of 2.

- Paxar 676 is a high resolution thermal printer which prints in three colours on both sides of the label. Low cost and easy to use / fashionable attractive labels / increased range designs
- Labels can be made out of a range of satin coated and uncoated nylon and polyester fabrics.
- They can be made as sew-in labels, swing tickets and adhesive labels.
- Labels can be accurately cut and stacked using ultrasonic and stacker units which read the ticket and cut it in the correct place. A smooth edge is achieved reducing irritation.
- Hand held bar code scanners which can print and apply labels to products in one process.
- Tagging Radio Frequency Identification (RFID) has been developed. The information stored about a product can be changed and updated. Several products can be written or read together.
- RFID tags contain information about the product such as time, date and status information, item ID and a unique identifier. An antenna reads the tag and updates the stock control system.
- Checks can be made on the movement of the product within the store until the tag is removed / security.
- RFID tags can be re-programmed and re-used so are environmentally friendly and cost effective.
- CAD / CAM makes it easier and quicker to make labels.
- Bar codes to indicate price and check stock / EPOS(electronic point of sale)
- Improved methods of attaching labels or making removable to avoid damage to product.
- Security labels - release ink if not removed.


## NOT

Reference to what is on the label.

## 1958/03 Paper 3 (Foundation)

1 (a) Credit any suitable product and no repeats.

- Open seam/seam/flat seam
- Button hole
- Darts

Product examples eg trousers, shirt, jacket, skirt, duvet cover, sweatshirt, t-shirt, top, child's toy/toy, shorts, sheet, settee/sofa, soft covers, shoes/boots/ trainers

NOT
Footwear
Clothing
bedding
(b) Credit any correct two techniques.

Quilting
Gathering
Patterned stitching- embroidery/programmable, length,
width/CAD/CAM/named stitch
Free machine embroidery
Hemming/bias binding
Stitch text
Appliqué/reverse appliqué
Add, braid, lace, trimming
NOT
Decorative stitch/ fancy stitch/different stitch
(c) Keep fingers away from needle

Switch machine off when threading/setting up
Long hair tied back/safety goggles/secures loose items of clothing
Check for bent flex, damaged parts, broken needle
Switch off after use
Keep dry/not near water/drinks etc
Pac test/electric test of equipment
Set up of machine/threaded correctly
Safety guard/wires/cables out of way/presser foot down

2 (a) Credit any four correct answers.
Do not accept over locker.

- Scissors
- Unpicker
- Pins
- Sewing machine
- Needle
- Tape measure/Metric ruler/ruler
- Bobbin
- Iron/ironing board
- Chalk/marker pencil/pen/tracing paper/carbon paper/stencil/template(not pattern)
- Tacking thread acceptable as removed (but not thread)

NOT
Components eg backing paper, vilenes, stitch n' tear/fabric
(b) Credit two answers from each of the three sections below.

- Cut fabric to size \& shape
- Iron on Vilene/interfacing/iron fabric/stitch n' tear paper
- $\quad$ Pin / tack pieces in place
- Turn edges in
- Layer fabric from bottom upwards/layers
- Outline design (to stitch)
- Set machine stitch (wide zig zag, short stitch length)
- Use correct machine foot
- Thread machine \& bobbin
- Carefully stitch around outline of design/sew together
- Ensure threads are secure at start and finish
- Using sharp pointed scissors trim away excess thread \& fabric
- Cut away fabric close to stitching lines to reveal fabric beneath
- Finish edges
- Press
- Remove stitch n' tear paper/pins/tacking/overlap (as long as in right order)


## 3 (a) Any six points to be credited. (All but colour must be labelled)

- Colour (shown or named)
- Pattern/motif/logo
- Design features-turn ups/high waist/low waist/lengthen/shorten
- Pocket
- Air vents
- Decorative featurebraid/embroidery/appliqué/printing/quilting/beading/dye/gems/tassels /lace/sequin
- Named fabric/recycled/smart material
- Shaping-darts/elastic/drawstring/pleats/belt/tuck/tapering/gathering
- Fastenings-zip/buttons/Velcro/poppers/hook \& eyes/eyelets/buckle
- Security of belongings-fastened pockets
- Storage-hoops/loops

NO REPEATS TO BE CREDITED
(b) Mark for reason not modification

- Opens up the range to more people - pricing
- Unisex
- Length or style/fit
- Large customer appeal/fashion/attractiveness/pattern/logo/colour
- Fastening - adjustability
- Technique/suitability for occasion
- Pockets-safety/suitability/practicality
- Named fabric-performance characteristics.

4 (a) (i) - Machine based production line

- Produces large numbers of identical products
- Only needs skilled workers to ensure continual flow
- Uninterrupted production
- Small workforce only
- Can be run by robotics
- Reduction of potential health problems/quieter environment
- Better working conditions/modern factory/less fumes/pollution from old machinery/safety updated
- Boosts productivity levels
- Increased in technical training - better wages
- More efficient system - machine shuts itself down as soon as an error is found
- Links well with modern manufacturing systems - just in time etc
- $24 h r s / d a y ~ p r o d u c t i o n ~ t o ~ r e d u c e ~ c o s t s . ~$
(ii) - Costs human workers jobs/loss of a job
- Expensive to run/re-start after a shut down/expensive
- Production workers have to work shifts $24 / 7$
- Extensive training initially needed
(b) One mark for a named product or fabric if given and one mark for description, or two marks for good description
- Fire resistant - space suits, specialist uniforms - protection, nomex upholstery
- Seat belts - safety/protection/strength/durability
- Agricultural bags/fishing nets - storage/collection
- Cables/ropes - storage, transport
- Geo textiles - reinforcement/water tight liners/hovercraft skirts/hulls of boots/aeroplanes
- Medical bandaging/clothing/footwear
- Chromatic - change colour/temperature/heat/environment eg ovengloves, t-shirts
- Micro-encapsulation - slow release chemicals - smell, antibacterial hygiene, anti-allergenic - chitosan - medical textiles, socks, sportswear
- Interactive/electronic - softswitch, wearable electronics - Ipod, jacket etc.
- $\quad$ Signalling textiles - reflective yarns, glow in the dark, phospherence dyes, safety wear - cycling, services etc.
- Bulletproof vests - Kevlar
- Wetsuits - neoprene
- Swimwear/ - fastskin, intelligent polymer systems - underwear.
(c) - Wood

Cotton

- Wool Silk
- Flax

Linen

- Peat Leaf fibres
- Bast fibres (hemp, nettle, ramie, jute, bamboo)/vegetable/plant
- Alginate (seaweed)

Rubber

5 (a) Any three components:
Braid, buttons, zip, hook \& eye, laces, press studs, Velcro, buckle, eyelets, sequin, flower motif, pom poms, sole of shoes, elastic/heels.
(b) • Waterproof

- Durable/hardwearing
- Comfort
- Protection of feet - keeps them dry/warm
- Breathable
- Windproof
(c) One mark for shallow response, two marks for two separate points or one point in detail.
- Tab at back of heel
- Aesthetic reasons - decorative, shape, colours, etc
- To strengthen/support
- Heel - padding, quilting for extra protection
- Tongue - taped seams to stop water leakage, extra stitching for strength \& durability
- Interfacing and reinforced stitching.
(d) - Metal toe caps
- Reinforced stitching
- Lined with fleece/faux fur
- Pockets
- Made longer/shorter/higher heel/shorter/thinner sole
- Adjustable straps
- Decoration - pattern/motif/logo/colour
- Decorative techniques - printing, appliqué, quilting, embroidery
- Components - (not buckles) zips, studs, laces, tassels (not fabrics)


## 1958/04 Paper 4 (Higher)

(a) (i) - Machine based production line

- Produces large numbers of identical products
- Only needs skilled workers to ensure continual flow
- Uninterrupted production
- Small workforce only
- Can be run by robotics
- Reduction of potential health problems/quieter environment
- Better working conditions/modern factory/less fumes/pollution from old machinery/safety updated
- Boosts productivity levels
- Increased in technical training - better wages
- More efficient system - machine shuts itself down as soon as an error is found
- Links well with modern manufacturing systems - just in time etc.
- $\quad 24 \mathrm{hrs} /$ day production to reduce costs.
(ii) - Costs human workers jobs/loss of a job
- Expensive to run/re-start after a shut down/expensive
- Production workers have to work shifts 24/7
- Extensive training initially needed
(b) One mark for a named product or fabric if given and one mark for description, or two marks for good description
- Fire resistant - space suits, specialist uniforms - protection, nomex upholstery
- Seat belts - safety/protection/strength/durability
- Agricultural bags/fishing nets - storage/collection
- Cables/ropes - storage, transport
- Geo textiles - reinforcement/water tight liners/hovercraft skirts/hulls of boots/aeroplanes
- Medical bandaging/clothing/footwear
- Chromatic - change colour/temperature/heat/environment eg ovengloves, t-shirts
- Micro-encapsulation - slow release chemicals - smell, antibacterial hygiene, anti-allergenic - chitosan - medical textiles, socks, sportswear
- Interactive/electronic - softswitch, wearable electronics - Ipod, jacket etc.
- $\quad$ Signalling textiles - reflective yarns, glow in the dark, phospherence dyes, safety wear - cycling, services etc.
- Bulletproof vests - Kevlar
- Wetsuits - neoprene
- Swimwear/ - fastskin, intelligent polymer systems - underwear.
(c) - Wood

Cotton

- Wool

Silk

- Flax

Linen

- Peat

Leaf fibres

- Bast fibres (hemp, nettle, ramie, jute, bamboo)/vegetable/plant
- Alginate (seaweed)

Rubber

2 (a) Any three components:
Braid, buttons, zip, hook \& eye, laces, press studs, Velcro, buckle, eyelets, sequin flower motif, pom poms, sole of shoes/elastic/heels.
(b) • Waterproof

- Durable/hardwearing
- Comfort
- Protection of feet - keeps them dry/warm
- Breathable
- Windproof
(c) One mark for shallow response, two marks for two separate points or one point in detail.
- Tab at back of heel
- Aesthetic reasons - decorative, shape, colours, etc
- To strengthen/support
- Heel - padding, quilting for extra protection
- Tongue - taped seams to stop water leakage, extra stitching for strength \& durability
- Interfacing and reinforced stitching.
(d) - Metal toe caps
- Reinforced stitching
- Lined with fleece/faux fur
- Pockets
- Made longer/shorter/higher heel/shorter/thinner sole
- Adjustable straps
- Decoration - pattern/motif/logo/colour
- Decorative techniques - printing, appliqué, quilting, embroidery
- Components - (not buckles) zips, studs, laces, tassels (not fabrics)

3 (a) M

- Unisex
- Flaps/pockets/air vents
- Size and use
- Converts to fingerless (or shown)/mitten top to cover
- Adjustable straps/detachable/clip to attach to coat/each other
- Protective - waterproof/insulated/lined/warmth/non-slip dots
- Reversible

F

- Suitable materials or fibre
- Washable/washing instructions
- Fastenings/component - velcro/button/buckle/elastic/press studs/toggle/drawstring

E

- Colour shown or named
- Motif/logo/pattern
- Fluorescent/reflective fabric
- Decorative technique - quilting/printing embroidery/appliqué
(b) Do not credit repeats from 3a
- Safety issues eg non-toxic materials/colour fast
- Non flammable materials/safety labelling
- $\quad$ Strong stitching and suitable seams
- Fastenings used
- Colourfast
(c) • Water repellent
- Breathable - helps keep body temperature constant
- Warm/good insulator
- Quick drying/absorbent
- Lightweight
- Durable/keeps shape
- Antibacterial - microencapsulation - avoid sweating

List - maximum of one mark for list of two points

4 (a) Process should be outlined using notes and diagrams and cover the following points in logical sequence.

- Wash off finish on fabric
- Mix/prepare dye
- Heat wax/get ready all equipment batik pot heated at 120 , tjanting tools \& brushes
- Stretch fabric taut/secure fabric/secure edges of fabric
- Draw outline of design onto fabric
- Apply wax to the areas not being dyed
- Crackled wax for vein effect
- Cold water dye either immersed or hand painted
- Let dry/dry
- Repeat steps if more than one colour
- Redraw/reapply wax
- Put fabric into boiling water/iron between layers of absorbent paper to remove/melt wax
- Wash fabric \& iron. Check dyes are colourfast.
(b) Credit any two correct points or one well explained.
- Changes with response to light/heat or moisture/sunlight or UV light.
- Can change colour to blend with background or environment.
- Can be applied by printing specialist dyes on or micro encapsulated onto fabric as all over finish.
- Dye or finish will have a set life span eg number of washes.
- Suitable for $100 \%$ cotton or cotton mix fabrics.
- Antibacterial micro-encapsulation - moisture, smell - hygiene, anti allergenic
- Phosphorescent dyes. Glow in the dark - safety
- Electronic textiles, soft switch
- Wearable electronics eg CD player, IPOD, mobile phone/pedometer
- Sympatex - waterproof protection

Do not accept
Gortex

5 (a) One mark for property and one for explaining it.

- $\quad$ Strong fabric when wet and dry
- Crease resistant
- Resistant to chemicals
- Resistant to sunlight and fading
- Ease of care
- Relatively cheap
- Drapes well
- Flame resistant
- Does not decompose
- Resistant to moulds
- Abrasion resistant
- Moth resistant
(b)

Any named pile fabric: velour, velvet, velveteen, corduroy, needle cord.

- Fabric is thicker and difficult to cut and sew in layers
- Pile fabrics are directional, corduroy and needle cord have directional parallel lines along the length of the cloth.
- Is a surface effect on a fabric formed by loops of tufts of yarn standing up from the body of the fabric therefore these may shed
- Directional fabric reflects light and can be different colour in different direction.
- Difficult to press - avoid flattening
- Fraying/unravelling/shedding/holes made easily/go bald/easily crushed
- Difficult to cut - slippery
- Fur pile cut from fabric
- Pattern pieces/cut to nap
- Fabric wastage
- Time consuming
- Prone to moving - creeping when worked
- Harder to mark - not retaining chalk marks/creases


## Grade Thresholds

General Certificate of Secondary Education
D\&T Textiles Technology Short Course (Specification Code 1058)
June 2008 Examination Series

## Component Threshold Marks

| Component | Max <br> Mark | A* $^{*}$ | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Paper 1 | 50 |  |  |  | 36 | 32 | 28 | 24 | 20 |
| Paper 2 | 50 |  | 34 | 30 | 27 | 22 |  |  |  |
| Coursework | 105 |  | 88 | 77 | 66 | 53 | 40 | 27 | 14 |
|  |  |  |  |  |  |  |  |  |  |

## Specification Options

Foundation Tier

|  | Max Mark | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall Threshold Marks | 175 |  |  |  | 114 | 96 | 78 | 61 | 44 |
| Percentage in Grade |  |  |  |  | 6.0 | 39.4 | 9.1 | 18.9 | 15.1 |
| Cumulative Percentage in <br> Grade |  |  |  |  | 6.0 | 45.4 | 54.5 | 72.7 | 87.8 |

The total entry for the examination was 38

Higher Tier

|  | Max Mark | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall Threshold Marks | 175 | 140 | 128 | 116 | 104 | 84 | 74 |  |  |
| Percentage in Grade |  | 5.7 | 20.0 | 54.3 | 14.3 | 2.8 | 0.0 |  |  |
| Cumulative Percentage in <br> Grade |  | 5.7 | 25.7 | 80.0 | 94.3 | 97.1 | 97.1 |  |  |

The total entry for the examination was 62

Overall

|  | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage in Grade | 2.9 | 10.3 | 27.9 | 10.3 | 20.6 | 4.4 | 8.8 | 7.3 |
| Cumulative Percentage in <br> Grade | 2.9 | 13.2 | 41.1 | 51.4 | 72.0 | 76.4 | 85.3 | 92.6 |

The total entry for the examination was 100
Statistics are correct at the time of publication.

General Certificate of Secondary Education
D\&T Textiles Technology (Specification Code 1958)
June 2008 Examination Series

## Component Threshold Marks

| Component | Max <br> Mark | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Paper 1 | 50 |  |  |  | 36 | 32 | 28 | 24 | 20 |
| Paper 2 | 50 |  | 34 | 30 | 27 | 22 |  |  |  |
| Paper 3 | 50 |  |  |  | 28 | 24 | 20 | 16 | 12 |
| Paper 4 | 50 |  | 30 | 26 | 23 | 18 |  |  |  |
| Coursework | 105 |  | 88 | 77 | 66 | 53 | 40 | 27 | 14 |

## Specification Options

Foundation Tier

|  | Max Mark | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall Threshold Marks | 175 |  |  |  | 111 | 92 | 74 | 56 | 38 |
| Percentage in Grade |  |  |  |  | 30.6 | 31.2 | 20.0 | 10.0 | 4.9 |
| Cumulative Percentage in <br> Grade |  |  |  |  | 30.6 | 61.9 | 81.9 | 91.9 | 96.8 |

The total entry for the examination was 3406

Higher Tier

|  | Max Mark | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Overall Threshold Marks | 175 | 144 | 130 | 116 | 102 | 81 | 70 |  |  |
| Percentage in Grade |  | 12.7 | 26.7 | 28.5 | 20.1 | 9.7 | 1.06 |  |  |
| Cumulative Percentage in <br> Grade |  | 12.7 | 39.4 | 67.9 | 88.1 | 97.8 | 98.92 |  |  |

The total entry for the examination was 5081

## Overall

|  | A* | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage in Grade | 7.6 | 16.0 | 17.1 | 24.3 | 18.3 | 8.6 | 4.0 | 1.9 |
| Cumulative Percentage in <br> Grade | 7.6 | 23.6 | 40.7 | 65.1 | 83.4 | 92.1 | 96.1 | 98.1 |

The total entry for the examination was 8487
Statistics are correct at the time of publication.

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