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FASHION AND TEXTTILES **6130/01**

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MARK SCHEME

Maximum Mark: 100

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Section A

Answer all questions from this section

1 Fig.1 is a drawing of a child's dress.

(a) (i) Cotton seersucker fabric is suggested for the child's dress in Fig.1.

Describe the appearance of cotton seersucker fabric and give one reason why this fabric is suitable for this style of child's dress.

Description:
plain weave, striped effect along warp threads due to slacker warp threads at regular intervals, stripe may be coloured, puckered, chequered, wrinkled, thin, threads bunched together, wavy weaving, same on both sides.

1 mark for brief description
2 marks for detailed description [2]

Reason:
- fabric is thin/ lightweight so gathers easily;
- striped/puckered effect means that minimum/no ironing would be needed so easier to look after as cotton fabrics crease easily;
- striped effect can be used for contrast with the patch pocket;
- because some threads bunch together, giving the fabric a wrinkled appearance in places, the fabric is mostly held away from the skin when worn, facilitating heat dissipation and air circulation/to allow free movement;
- any other correct point.

[1]

(ii) Explain two performance characteristics of cotton seersucker fabric that make it suitable for a child's dress.

Answer could include:
- cotton fabric washes easily as they are more likely to get soiled when children play
- strong;
- hardwearing and good for children's clothes so they will withstand wear and tear when playing;
- fabric is cool to wear/absorbent so good for summer wear;
- cotton fabric is non-irritating to the skin so it is good for children's wear as they may have sensitive skin;
- any other correct point.

1 mark for each brief explanation [2]

(iii) In the space below, draw the correct care symbol for ironing cotton seersucker fabric.

	Hot 200 /degrees C

1 mark for iron symbol only (outline), 2 marks if correct iron symbol and three dots inside or labelled 'hot' or '200 degrees C' [2]

(iv) Name <u>one</u> different fabric made from cotton/polyester which could be used instead of cotton seersucker for the child's dress in Fig. 1 Give one reason for your choice.

Name of fabric: cotton polyester poplin, gingham, lawn, [lightweight] gabardine

Any other correctly named woven fabric, must be suitable for dress. [not seersucker] [1]

Reason for choice:
- poplin is a firm fabric and would gather well;
- gingham has a checked pattern woven in and the pocket could have a contrasting pattern if cut on the true cross;
- gabardine is a hardwearing fabric and if it is a light weight will also gather well;
- any other correct reason.

Credit correct reason for wrong fabric [1]

(b) (i) The child's dress in Fig.1 is gathered at the waistline.

Give <u>two</u> reasons why this gathering is needed.

- effective way to dispose of/provide fullness at the waistline/give shape;
- so the skirt will fit onto the bodice well;
- extra fabric could be used to make the dress wider if the child grows and the dress needs to be altered to fit;
- the dress is a loose fitting style and the extra fullness in the skirt will mean the child can move easily;
- not just 'comfortable to wear' or decoration;
- any other correct answer.

1 mark for each correct answer given. [2]

(ii) Using notes and labelled diagrams, explain how to shorten, by 2 cm, the sleeve pattern for the child's dress in Fig. 1.

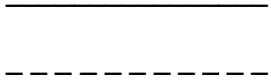
Main points of shortening a sleeve pattern:

- find lengthening/shortening line on pattern piece;
- measure the desired length/measure the pattern;
- make a fold on the pattern at the position of the lengthening/shortening lines;
- the fold should be half the width of the amount to be shortened, e.g. if the pattern is to be shortened by 2 cm, the fold should be 1 cm deep;
- redraw the side seams if they are no longer straight;

One mark for clear diagram. One mark per point.
Maximum 2 marks for shortening at the bottom of the sleeve.
No marks for simply shortening the sleeve fabric without reference to the pattern.
Max 3 marks if no diagrams. [4]

(iii) Fig. 2 below shows the pattern piece for the bodice front of the child's dress in Fig.1.

Draw on Fig. 2 the pattern symbols for: the grain line, a button, a buttonhole and a seam allowance.

Pattern name	Symbol
grain line	**= 1 mark**
button	**or + or**  **= 1 mark**
buttonholes	 **One or the other = 1 mark**
seam allowance	 shown on any edge of the pattern piece (space between lines labelled as 1.5 cm) **= 1 marks**

The symbols must be in the correct place to get mark.
1 mark for correctly labelled symbols.

[5]

(iv) State <u>two</u> reasons to explain why buttons and buttonholes have been used as a fastening on the front of the child's dress in Fig.1.

- buttons and buttonholes are easy for children to fasten especially if they are at the front of the garment;
- buttons can be moved if the child grows and more room is needed;
- decorative reasons.

1 mark for each correct point [2]

(v) Suggest an alternative fastening which could be used in the same position on the child's dress in Fig. 1.

Answer could include:

- poppers or press-studs;
- velcro;
- hooks and eyes;
- rouleau loops;
- frog fastening;
- Not zip as this would change the appearance.

1 mark for correct answer [1]

(vi) Explain how to work tailor tacking to transfer a buttonhole marking from the pattern to the fabric. You may use notes and labelled diagrams to support your answer.

- using tacking thread, thread a needle with double thread;
- stitch by hand from one side of the tailor tack to the other side through both layers of fabric;
- repeat to make a loop of thread;
- repeat the stitch two or three times;
- separate the two pieces of fabric, pull them apart;
- cut the tailor tack so that there is thread on both pieces of fabric;
- coloured tacking thread may be used.

1 mark for each correct point. Credit diagrams where appropriate. [4]

(c) (i) A patch pocket has been stitched on the bodice front of the child's dress in Fig.1.

Suggest <u>two</u> methods to finish the top edge of the pocket.

- self-binding or bias binding which may be of a contrasting colour;
- self-facing on top edge of pocket;
- narrow machined hem;
- lined pocket;
- top stitch.

Not piping
1 mark for each correct method [2]

(ii) Suggest an alternative type of pocket which could be used on the child's dress in Fig. 1. Explain where you would position the pocket on the dress and give one reason for your choice. You may use notes and labelled diagrams to support your answer.

Name of pocket: side/in-seam pocket/welt pocket/faced pocket [1]

Position on child's dress: side seam near the waistline [1]

Reason for choice of position: easy to insert the pocket in a seam, does not alter the style/appearance of the dress, convenient/accessible for wearer, will not rip off easily. [2]

(iii) CAD could be used to modify the the patch pocket design. What is meant by CAD?

Computer Aided Design [1]

(iv) Suggest <u>three</u> benefits of using CAD to modify the patch pocket design.

- easy to make changes [to existing designs/patterns;
- designs/patterns can be stored and re-used when needed;
- don't lose papers/easier to organise;
- CAD always accurate;
- design can be quickly changed;
- virtual modelling of design allows changes to be viewed without the expense of making the garment;
- the changed designs can be emailed to customers for approval before production;
- stock designs from software library can be tried out;
- saves money for materials/labour;
- saves time;
- environment, saves paper.

1 mark for each correct point [3]

(d) State <u>three</u> ways in which consumers can recycle unwanted textiles products.

Answer could include:

- upcycle/personalise;
- give to others to reuse/hand down/change garment so that it fits a younger child;
- give unwanted items to charity/sell;
- unpick items and use any good parts or components in another item, e.g. pair of shorts;
- use the fabrics from several items to make a patchwork item/rag rugs, e.g. bag;
- use unwanted textile items as rags;
- shred to make mattress fillings

1 mark for each well discussed point;
1 mark for two brief answers which have little or no explanation. [3]

[Total: 40]

SECTION B

Answer <u>three</u> questions from this section.

2 Many different fibres are used to make fabrics.

(a) Cotton is sometimes blended with other fibres before being used to make fabrics.

Different fibres are combed/combined together [evenly] so that when a yarn is produced, it contains both fibres, e.g. cotton fibre and linen fibres. [1]

(ii) Name <u>one</u> natural fibre, one regenerated fibre and one synthetic fibre that can be blended with cotton fibres.

Natural fibre: linen, wool, (also hemp, silk) [1]

Regenerated fibre: viscose, Lyocell, Tencel, rayon, acetate, etc. [1]

Synthetic fibre: polyester, Lycra, (nylon, acrylic) [1]

Accept any realistic suggestion

(iii) Give <u>two</u> reasons why synthetic fibres might be blended with cotton.

Answer could include:
polyester will probably be the most popular answer, although accept any other correct synthetic fibre and matching correct reasons.

- to improve performance characteristics;
- crease resistance: blending polyester (synthetic fibre) and cotton improves crease-resistant properties as cotton creases badly;
- easy care properties: Polyester is not very absorbent and by blending it with cotton the fabric dries more quickly and is easier to iron;
- cheaper than cotton as polyester is a manufactured fibre and cotton production is dependant on climatic conditions so costs can be high;
- to create new varied yarns and fabrics.

Lycra blend: lycra is elastic and gives elasticity to the blend because cotton is not elastic, creases badly and is not very flexible. By adding Lycra, the fabric can be used for sports/leisure clothing, where extra comfort is required. Only a small percentage of Lycra is needed.

Marks should be awarded if the synthetic fibre is not named but the reasons could apply to any synthetic blend with cotton. Reasons must refer to synthetics

1 mark for each correct point [2]

(b) Name <u>two</u> chemical finishes which could be used on synthetic fabrics and explain how they improve the performance characteristic of the fabric.

- **anti-static finish** reduces static charge and therefore reduces accumulation of dust/dirt and does not cling to other fabrics in wear;
- **flame resistance finish** to reduce flare/flames which are very likely with polyester, nylon and acrylics. (Not needed on modacrylics because these are inherently flame resistant). Due to the origin of these synthetics, (oil/petroleum products) they catch light easily and melt/burn easily. Examples of finishes – proban, pyrovatex;
- **stain resistance**, e.g. scotch guard, teflon – used on absorbent fabrics to reduce stains being absorbed into the fabric by coating the surface with a polymer/silicone finish. When liquid (stain) touches the surface, it runs off rather than being absorbed;
- **water repellency** – similar to stain resistance. If candidates chose to write about both of these, different explanations will be needed to gain full marks, e.g. teflon, wax;
- **crease resistance/non-iron** resin applied to make fabric easy care. They dry fast and smooth and need little ironing.

Any other correct finish with explanations. Reason must not repeat finish

1 mark for correct name/description of finish.
1 mark for brief explanation of each improvement to fabric.
2 marks for detailed explanation for each improvement to fabric.
Maximum 3 marks per finish [6]

(c) State <u>four</u> benefits of using organic cotton fabrics and explain how they may influence consumer choice when purchasing fabrics and clothing.

Answer could include:

- No pesticides are used so consumers know that these chemicals will not harm insects and wildlife or get into the water supply;
- No herbicides are used so plants that may be beneficial to insects will not be harmed;
- Organic cotton is sometimes grown by Fair Trade communities so the consumer will know that purchasing items made from organic cotton will benefit these farmers/growers;
- Organic cotton may also be used without the addition of dyes to colour the fabric so consumers know that local water resources/environment will not be harmed by dye residue;
- Skin sensitivity/non irritant because do not contain chemical residues.

Any other correct point.
1 mark for a brief explanation of each point.
2 marks for a detailed explanation of each point.
Max 4 marks for 4 brief points. [8]

[Total: 20]

3 Refer to the child's dress in Fig.1 in Section A.

(a) (i) Name the style of the collar on the child's dress in Fig.1.

Peter Pan or flat collar [1]

(ii) Describe one suitable interfacing which could be used for the collar on the child's dress, shown in Fig. 1. Give two reasons for your choice of interfacing.

Non-woven sew-in interfacing
Made from non-woven synthetic fibres
- can be tacked in place;
- available in various weights so can choose the best one to match fabric used on the collar;
- no grain on the interfacing needs to be used so can be cut in any direction/economical/easier.

Non-woven fusible interfacing
Made from non-woven synthetic fibres with a layer of heat responsive glue on one side
- can be ironed in position;
- easier to use;
- available in various weights;
- easier to cut out because no grain.

Woven interfacing (sew-in)
A lightweight loosely woven fabric. Can be quite stiff.
- the correct weight would need to be selected for the fabric used;
- has to be tacked in position;
- suitable for the woven fabric of the dress because the grain lines can be matched up for a smooth flat finish on the right side of the collar;
- available in a variety of weights.

Woven interfacing (iron-on)
A lightweight loosely woven fabric with a layer of heat responsive glue on one side.
Can be quite stiff.
- the correct weight would need to be selected for the fabric used
- can be ironed in position;
- the grain direction can also be followed so it will give good finish on the right side of the collar;
- easier to apply than the sew-in type;
- available in various weights.

1 mark for one correctly named/described interfacing.
1 mark for each correct reason. [3]

(iii) Explain how to apply interfacing to the collar on the child's dress in Fig. 1. You may use notes and labelled diagrams to support your answer.

Sew-in interfacing:
- cut interfacing to the same size as the collar/on straight grain;
- place/pin the interfacing on the wrong side of one collar section;
- tack the interfacing to the collar [using long stitches];
- after the collar sections have been stitched together trim the seam allowance from the interfacing.

Iron-on/fusible interfacing
- cut interfacing to the same size as the collar;
- trim the seam allowance (1.5 cm) from the interfacing;
- place the fusible side of the interfacing to the wrong side of one collar section;

- using a hot iron (and damp cloth) fuse the interfacing to the collar/melt the glue so the interfacing sticks to the collar.

Credit diagrams that communicate correct points [4]

(iv) Using notes and labelled diagrams, explain how to make the interfaced collar before sewing it to the child's dress in Fig.1.

- place right sides of the collar together;
- pin, tack and machine along seam line (1.5 cm from the raw edge);
- trim the seam allowances in the following way: trim woven interfacing very close to the stitching along the seam line; [fusible interfacing has already been reduced]. cut away the remaining two seam allowances of main fabric at different widths to layer the seams;
- clip the curved edges all around the outer edge of the collar to a depth of 1.3 cm;
- turn collar to right side, roll edge until the seam line is along the edge;
- tack and press, remove tacking.

Method to be in the correct order although all the above may not be included.
Allow up to 4 marks for method above. Credit the longest correct sequence.
2 marks allowed for correct sketches which accompany the notes [6]

(b) After the under collar is machined to the bodice neckline of the child's dress in Fig. 1 it is necessary to finish the remaining raw edge of the top collar.

Discuss the best method of finishing the raw edge of the top collar for the child's dress in Fig. 1. Give reasons for your choice.

Stitch by hand: trim/clip seam allowance, turn under and use a hemming stitch/slip stitch/blind hemming stitch. Reasons: well finished, secure, looks neat, no stitching shows, no seam allowance shows.

Neck facing: Stitch neck facing to collar right sides together. Reasons: all seam allowances hidden, extra flap to deal with/secure in place, lies flat, more fabric used, 'hanger' appeal, stronger, may give better neck shape, no hand stitching needed.

Self-binding/bias binding: Apply binding over the raw edges of collar. Stitch in place by hand. Reasons: neat, cheap, style feature, more skill needed in making, can be done without a sewing machine.

Unsuitable methods may be mentioned as being unsuitable because they give reasons for chosen finish.

1 mark for brief point; 2 marks for well explained point/example.

For 5–6 marks the answer should make clear what the best choice is and why this is a better choice than at least one other. [6]

[Total: 20]

4 Fashion accessories, such as bags, are popular and useful for teenagers.

(a) (i) Draw and label a sketch of a fashionable school bag. Your design should include a quilted panel.

- a pocket with a quilted panel/quilted panel on the back of the bag/quilted panel at side to make a stiffer gusset/flap with quilted panel, etc.;
- style features could include: strap/handle, applique, flap, fastening, e.g. zip/buttons/clips/press-studs;
- front and back view could be included.

1 mark for correct use of a quilted panel and 1 mark for each correctly labelled style feature and 1 mark for an accurate sketch.

Max 3 marks if no quilted panel. [4]

(ii) Name a suitable fabric for the bag and describe how the fabric is constructed.

Fabric Name	Examples: denim; canvas; cotton gabardine; linen canvas; calico, drill, etc. Any fabric that is stiff enough/suitable for the style. [1]
Structure/construction method of fabric	Answer needs to relate to the fabric chosen, most likely woven construction. Jersey (knitted/stretchy) fabrics not usually suitable as they are likely to go out of shape in use unless the fabric has been bonded/fused on the wrong side. [1]

[2]

(iii) Give <u>two</u> reasons why you have chosen the fabric in 4(a)(ii).

Answer could include:

- fabric stiff so it keeps its shape;
- strong enough to carry contents of a school bag;
- fabric/fibre is hardwearing/long-lasting to withstand everyday use for school
- cotton fibres are washable;
- (woven) fabric is firm and will keeps its shape as bag will be used to hold items school items so should not sag/go out of shape;
- fabric is not too thick for the quilted panel.

1 mark for each correct point. [2]

(iv) Name <u>two</u> components used for the bag you designed in 4(a)(i).

- wadding/batting/foam;
- any fastening (depends on design);
- Any trimming: beads/sequins/ribbons/bells, etc.
- any other appropriate answer.

1 mark in each category [2]

(b) Explain how to make the quilted panel on the bag sketched in 4(a)(i). You may use notes and labelled diagrams to support your answer.

Answer could include:

- pin or glue wadding/batting to backing fabric;
- place three layers of fabric together in a sandwich with wadding in middle, pin and tack;
- mark any design/quilting lines on fabric with chalk or carbon paper (This step could be done first);
- set machine to bigger stitch and loosen tension if necessary;
- change presser foot/add quilting guide (if applicable to machine being used)/use walking foot
- use a frame if the piece of quilting is large;
- machine (straight stitch) or hand stitch along the marked design through all layers;
- work from the centre to the outside of fabric;

1 mark for each correct point, must be in logical order, (does not have to include every step above).
Credit correctly labelled diagrams that communicate any of the points above. [4]

(c) Discuss <u>three</u> advantages for using a quilted panel on the bag.

- **protection** as it could be a panel in front of a pocket which could hold delicate/fragile objects;
- **decoration** – the panel could be decorated with stitching to make it more attractive/trendy/fashionable;
- **to stiffen** the bag as the fabric on its own may not be firm enough;
- **Strengthen** part of the bag, e.g. base, sides

2 marks for each correct well discussed point, 1 point for named advantage [6]

[Total: 20]

5 Colour can be added to textile products in many different ways.

(a) (i) Name <u>two</u> stages of production at which dye can be added to textiles.

- Fibre;
- Yarn;
- Fabric;
- garment.

1 mark for each correct stage. [2]

(ii) State <u>two</u> advantages of using natural dyes for dyeing textiles.

- no artificial chemicals are used that may be an irritant;
- no harmful chemical used so will not harm the environment/animals/insects/wildlife/water supplies;
- cost, can be cheaper;
- subtle colours;
- traditional methods, e.g. indigo.

1 mark for each correct point [2]

(iii) Explain <u>two</u> reasons why synthetic dyes rather than natural dyes are often used in textiles production.

- natural dyes can be scarce so not enough might be available for large scale dying;
- synthetic dyes are more reliable, i.e. the colour will always be the same, whereas natural dyes will depend on the dye materials/fabrics available and may not be the exact colour each time;
- colour fastness, don't fade in light/washing;
- brighter colours/can choose/make any colour. Computerised mixing and colour selection;
- cheaper – natural dyes expensive to use on large scale.

1 mark for a brief point
2 marks for a detailed explanation [4]

(b) Batik is often used to produce patterns on fabrics. Explain the method of producing a batik design on fabric. You may use notes and labelled diagrams to support your answer.

- fix fabric to frame using pins;
- draw design onto fabric (could be done before attaching fabric to frame);
- heat (bees/paraffin) wax in pot until melted;
- use tjanting/brush to apply hot wax onto fabric following the design;
- allow wax to go hard/cold/to set;
- mix cold water dye in a suitable container;
- add waxed fabric to the dye bath and leave for correct time to obtain desired colour
- rinse fabric;
- remove wax by ironing between layers of absorbent paper;
- wash fabric to remove excess wax/dye;
- dye can be applied in several layers with the process repeated to achieve desired effect.
- wax can be squeezed so that it cracks to create a crackled effect all over.

1 mark for any 6 points/labelled diagrams in logical order.
Credit longest correct sequence.
Last two points do not have to be in order.
Credit labelled diagrams if the point is communicated well. [6]

(c) Discuss <u>three</u> factors which a consumer might consider before buying a textile item with a design produced by dyeing.

- is the dye colourfast to washing (i.e. colour will not run) and light (will not fade);
- if they like the design as it may be tie-dyed and the design may not be symmetrical;
- Does the colour scheme fit in with other things in their wardrobe, Is the colour fashionable;
- Is the dye natural or synthetic? Are non-toxic dyes used? (children), non-allergy/irritant may be preferred/ environmentally friendly.

any other appropriate/relevant point.

1 mark for each factor described. 1 mark for an explanation for each factor described
Max 2 marks per factor [6]

[Total: 20]

6 Commercial patterns are often used when making textile items.

(a) (i) State <u>two</u> reasons why a consumer would buy a commercial pattern to make an item of clothing.

- reliable/known sizing;
- can adjust pattern to fit;
- there is photo/picture of the finished design on the envelope so they know what the item looks like when made up;
- value for money if a variety of items in one pattern envelope/multi-sized pattern so the pattern could be used for different sized people;
- saves time

1 mark for each correct point. [2]

(ii) Explain what the following terms mean when using patterns.

With nap:
- fabrics with texture or some kind of pile. Fabric is smooth when brushed in one direction and rough when brushed the other way;
- the nap should follow the same direction of the grain line on all pattern pieces; e.g. velvet and corduroy have a nap. [2]

Stay stitching
- a line of machine stitching made inside the seam line within the seam allowance;
- used to ensure a seam line does not stretch out of shape;
- used on one edge where a curved seam has to be eased together, e.g. princess line or tailored jacket;
- it allows clipping to be done close to it so the fabric does not fray. [2]

Notches:
- can be single or double;
- also known as balance marks;
- used to match pieces together when constructing the textile item, e.g. single notch on a sleeve front will match with a single notch on the armhole;
- Single notches usually at front and double at back. Triple and quadruple notches can also be used on complex patterns. [2]

(b) Explain how to prepare the fabric and paper pattern before cutting out a pair of shorts. You may use notes and labelled diagrams to support your answer.

- make sure there is enough fabric;
- iron fabric to remove creases;
- look for flaws;
- place selvedges together (or in line with grain line if fabric not folded exactly in half)/right sides together;
- straighten the cut edges of the fabric if uneven;
- find the correct pattern pieces and lay onto fabric with grain lines parallel with the selvedge/straight grain;
- place paper pattern pieces to fold if necessary;
- match any checks/stripes/patterns;
- pin pattern pieces onto fabric ready for cutting;
- make sure there are no pattern pieces over edges of fabric or overlapping.

1 mark for each correct point.
Credit labelled diagrams that communicate any of the points. [6]

(c) Discuss how a manufacturer of school trousers would plan and carry out the cutting out of fabric to make a large quantity of trousers.

- CAM probably used for pattern lay as this is quicker, more reliable and accurate;
- most economical layout used so minimum fabric is wasted;
- different sizes may be placed together to reduce waste of fabric between pieces;
- fabric will be laid out on long tables either manually, by machine or computer controlled machinery;
- thinner fabric is cut in a greater number of layers;
- multiple layers of fabric will be put together and cut out with a band saw or laser cutter. This could be computer controlled and automatic or could be done by skilled worker wearing chain mail gloves;
- patterns will have notched marks at the edges so that matching pieces together is easy in construction;
- if no CAM, may use card patterns that can be reused;
- a full size paper print out of the lay that is placed on the fabric to be cut may be used.

Any other correct/relevant point.
1 mark for each well discussed point. [6]

[Total: 20]