

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE

**Design and Technology:
Textiles Technology
Unit 2: Knowledge and Understanding of
Textiles Technology**

Wednesday 22 May 2013 – Afternoon
Time: 1 hour 30 minutes

Paper Reference

5TT02/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- If pencil is used for diagrams/sketches it must be dark (HB or B). Coloured pens, pencils and highlighter pens must **not** be used.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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PEARSON

Answer ALL the questions.

For each question 1 to 10, choose an answer A, B, C or D. Put a cross in the box indicating the answer you have chosen . If you change your mind about an answer, put a line through the box and then mark your new answer with a cross .

1 Which **one** of the following is a continuous filament?

- A** Cotton
- B** Wool
- C** Silk
- D** Linen

(Total for Question 1 = 1 mark)

2 Complete the sentence below to give the correct explanation of the appliqué method.

Appliqué is when you:

- A** apply buttons or beads onto fabric
- B** apply pieces of fabric onto another by sewing
- C** decorate fabric by felting it
- D** decorate fabric by printing

(Total for Question 2 = 1 mark)

3 The grainline symbol must be considered when placing pattern pieces so that:

- A** the sizes can be changed
- B** you know where to put the buttonhole
- C** they will hang correctly when cut out
- D** you can produce identical pieces

(Total for Question 3 = 1 mark)

4 Which **one** of the following fabrics is made from fibres that have **not** been spun into yarn first?

- A** Felt
- B** Jersey
- C** Velvet
- D** Towelling

(Total for Question 4 = 1 mark)



5 Which **one** of the following gives the characteristic of 100% cotton woven fabric?

- A Fabric stretches along warp and weft
- B Fabric stretches along weft
- C Fabric ladders when cut
- D Fabric does not stretch along warp and weft

(Total for Question 5 = 1 mark)

6 EPOS stands for which **one** of the following?

- A Exclusive prices on sale
- B Electronic point of sale
- C Electric parts of stock
- D Entry point of shipping

(Total for Question 6 = 1 mark)

7 Less fabric is needed when using:

- A checked fabric
- B striped fabric
- C plain fabric
- D patterned fabric

(Total for Question 7 = 1 mark)

8 Which **one** of the following health and safety rules **does not** apply in a common classroom textiles workshop?

- A Keep fingers away from the needle
- B Avoid leaving trailing wires
- C Ensure lighting is adequate
- D Wear a chain mail glove when cutting out

(Total for Question 8 = 1 mark)



9 Which **one** of the following is a thermoplastic fibre?

- A Wool
- B Nylon
- C Silk
- D Cotton

(Total for Question 9 = 1 mark)

10 Calendering increases the lustre of fabric by:

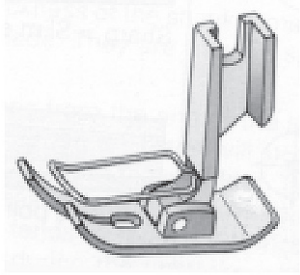
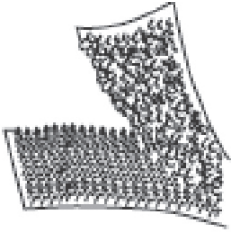
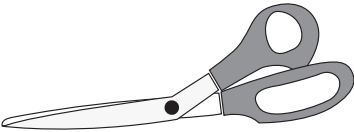

- A bleaching
- B using resin
- C applying pressure between rollers
- D mechanically brushing the surface

(Total for Question 10 = 1 mark)



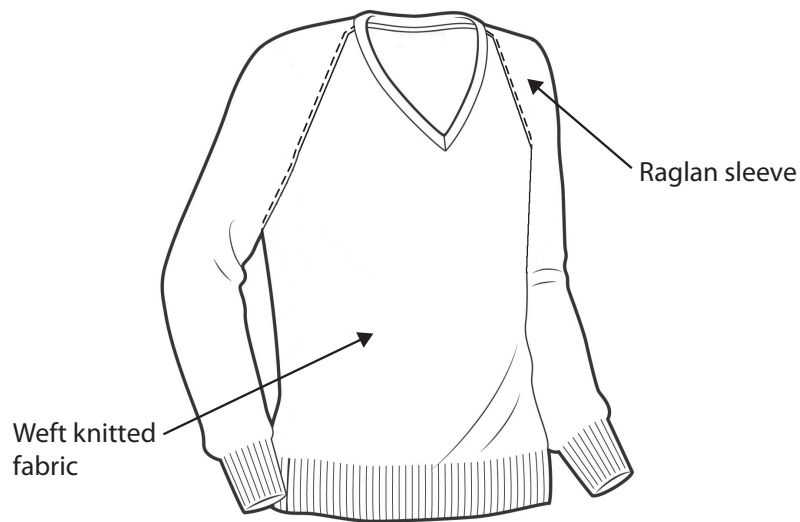
11 (a) The table below shows some components and equipment.

Complete the table below by giving the missing names and uses.

Components/Equipment	Name	Use
	Presser foot	(1)
	Velcro	(1)
		To cut fabric easily and accurately (1)
		To fasten products securely (1)



(b) The drawing below shows a school jumper.



The school jumper is constructed with raglan sleeves.

Give **two** characteristics of a raglan sleeve that make it a suitable construction process for the school jumper.

For **each** characteristic, give **one** reason for your answer.

(4)

Characteristic 1

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.....

Reason

.....
.....

Characteristic 2

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Reason

.....
.....



(c) (i) State **two** characteristics of weft knitted fabric that make it suitable for a school jumper.

(2)

1

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2

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(ii) Explain **one** advantage of warp knitting over weft knitting.

(2)

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(d) Give **two** reasons why it is important for the manufacturer to give the fibre content in the care label.

(2)

1

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2

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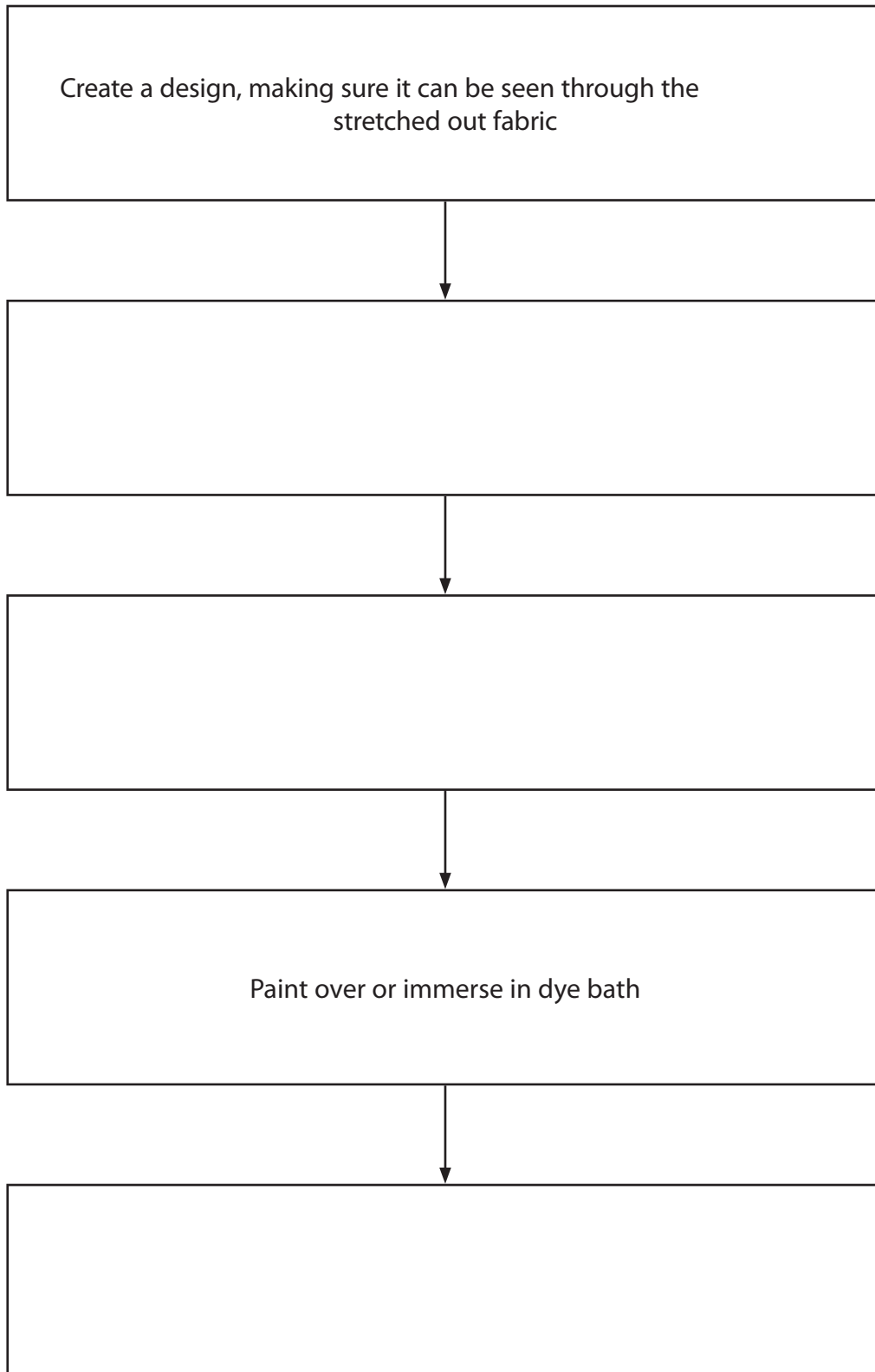


Decoration can be added to fabric in many different ways.

(e) (i) Complete the flow chart below to show the main stages of the batik process in the classroom.

Some stages have been completed for you.

(3)



(ii) Batik uses a resist technique to decorate the surface of fabric.

Explain what is meant by the term 'resist' when referring to dyeing or printing.

(2)

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(Total for Question 11 = 19 marks)



12 A local school is redesigning its school bag. You have been asked to help the school create a suitable product.

The specification for the school bag is that it must:

- be able to carry books, separately from pens and other essential equipment
- be able to fasten quickly and easily
- be able to hold valuables securely
- use strengthening components or construction techniques
- be made from shower/waterproof fabric or have a suitable finish/coating
- be comfortable to carry
- use a decorative technique to display the school logo
- be suitable for batch production.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the school bag that meet the specification points above.

Candidates are reminded that if a pencil is used for diagrams/sketches it must be dark (HB or B).

Coloured pens, pencils and highlighter pens must **not** be used.

PLEASE DO NOT WRITE OR DRAW IN THIS SPACE.

PLEASE USE THE SPACES OPPOSITE FOR YOUR DESIGNS.



Design idea 1

(8)

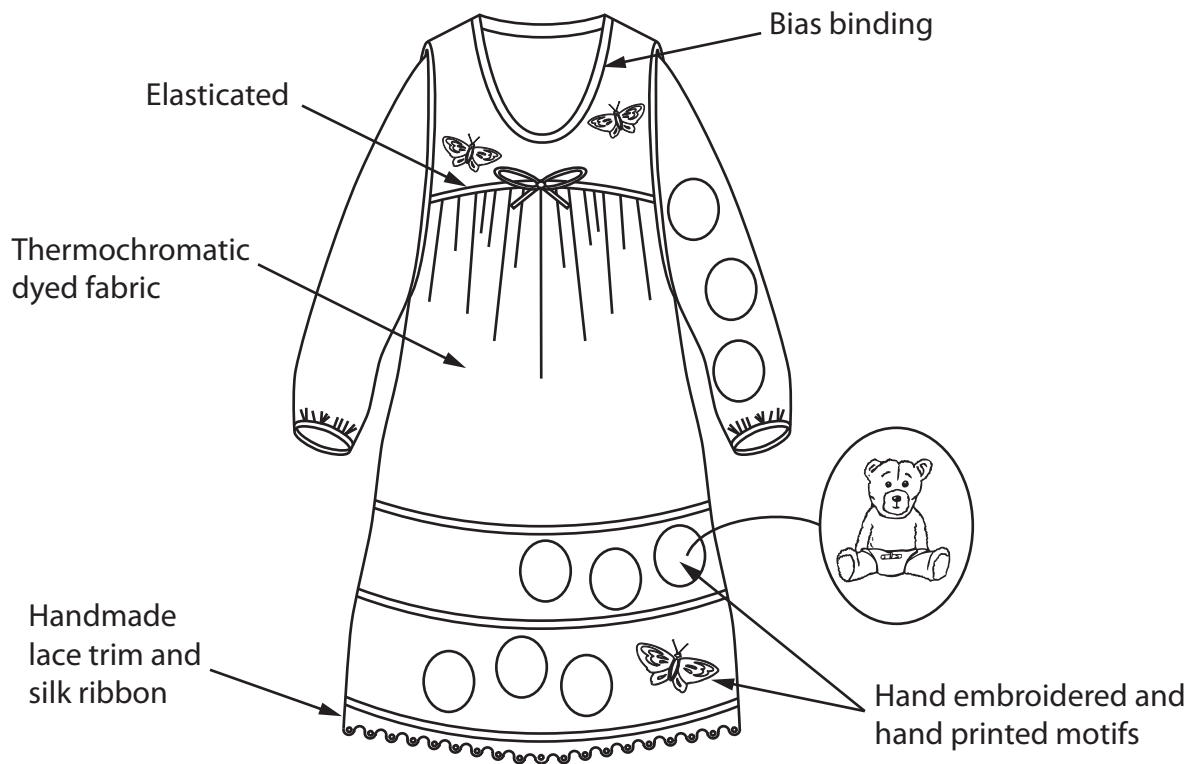
Design idea 2

(8)

(Total for Question 12 = 16 marks)



13 The drawing below shows a child's knee length nightdress made from brushed cotton fabric.



(a) Give **one** property of a brushed finish that makes it suitable for a nightdress. For the property, give **one** reason for your answer.

(2)

Property

Reason

The nightdress has been made as a one-off product.

(b) Describe why this is an appropriate method of production for this product.

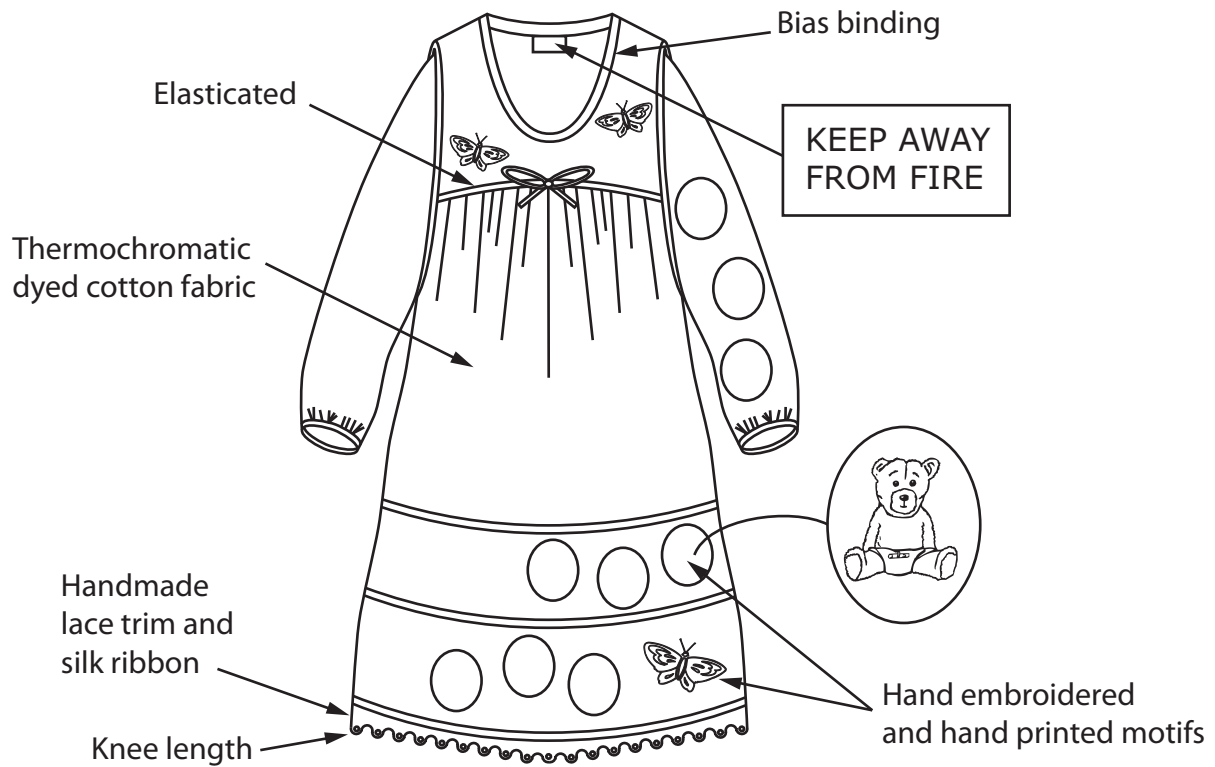
(2)



A care label gives the information to 'KEEP AWAY FROM FIRE' in red writing.

(c) Explain why this piece of information is given.

(2)



(d) Explain how the nightdress is successful in meeting the following specification points:

(i) easy to put on and take off

(2)

(ii) safe to wear.

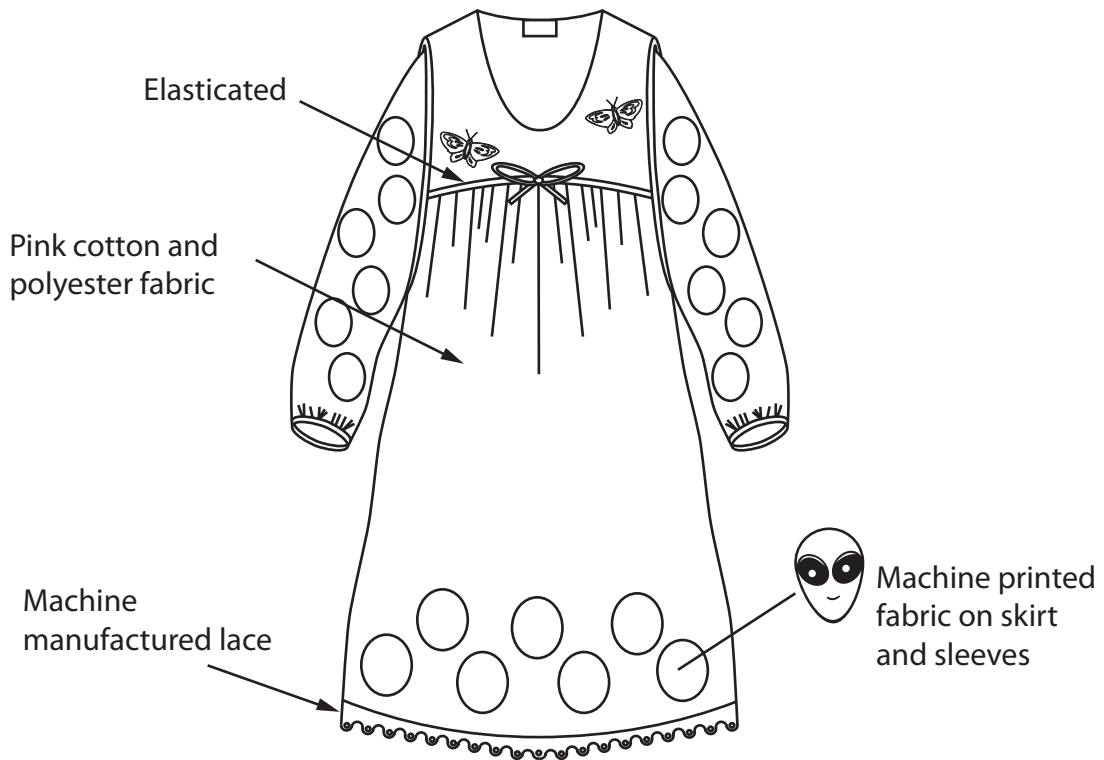
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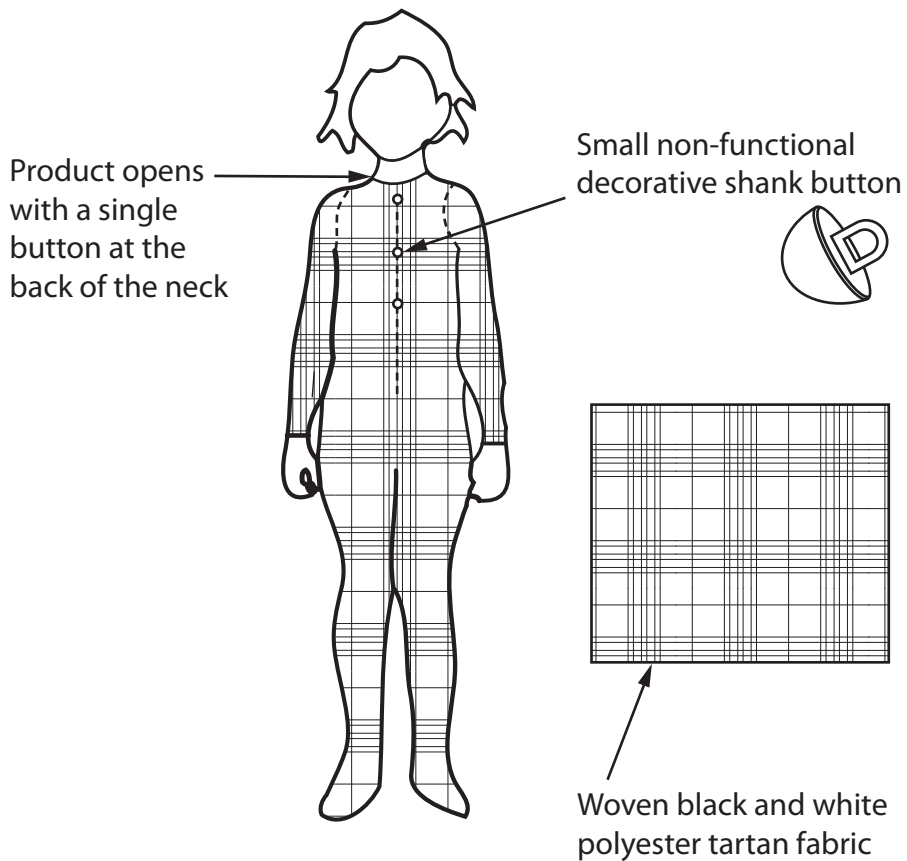
P 4 1 1 5 9 A 0 1 3 2 0

Product A and Product B show two nightwear products.

Product A has been modified for batch production



Product B



14 Zigzag stitch can be used to finish raw edges.

(a) Give **one** other method that can be used to finish raw edges.

(1)

Fabric can be made more interesting by the choice of yarn selected.

(b) State **two** ways that yarn can be made more interesting apart from dyeing it.

(2)

1

2

Rotary screen printing is a popular printing method used in industry.

(c) Describe **one** benefit of rotary screen printing as a method of decorating fabric compared with flat screen printing.

(2)

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(d) Distressed denim regularly comes in and out of fashion. Biostoning is now regularly used to create this worn effect.

Explain why this is a popular method of distressing.

(2)

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(e) Computer Aided Design (CAD) is used in batch production for pattern making, grading and lay planning.

Explain **one** advantage of using CAD in textiles production for **each** of the following:

(i) Modifying existing pattern pieces

(2)

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(ii) Grading pattern pieces

(2)

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(iii) Lay planning

(2)

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The Kyoto Protocol was established as a method to improve the environment.

*f) Describe the aim of the Kyoto Protocol and discuss how the textiles industry can be involved in reducing global warming.

(6)

[Dotted lines for student response]

(Total for Question 14 = 19 marks)

TOTAL FOR PAPER = 80 MARKS



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