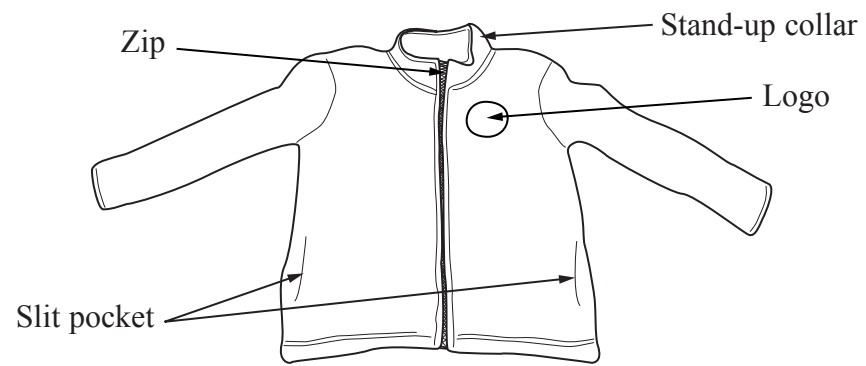


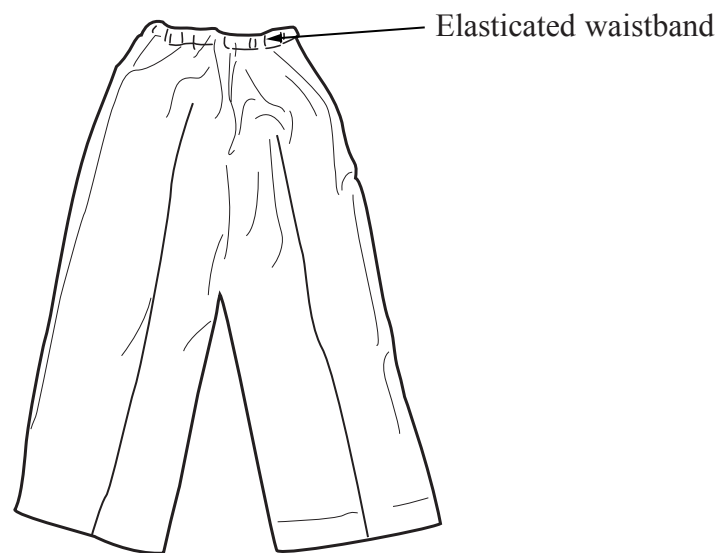
Answer ALL the questions. Write your answers in the spaces provided.

1. The drawings below show a school uniform for a child aged five years.

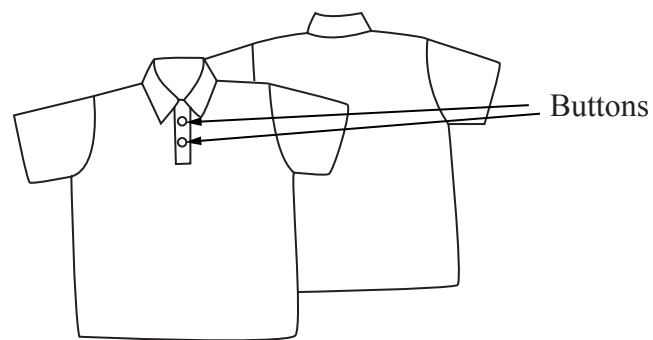
The fleece top is made from polyester produced from recycled plastic bottles, the trousers from a laminated fabric and the short sleeved polo shirt from knitted cotton.



FLEECE TOP



TROUSERS



POLO SHIRT



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(a) Two specification points for the school uniform are that it must:

- keep the child warm
- be easy to care for.

Under each of the following headings, give **one** more point that should be included in the specification for the school uniform.

For each point, give **one** reason why it should be included.

(i) **Quality**

Point

Reason

.....

(2)

(ii) **Environment**

Point

Reason

.....

(2)

(iii) **Safety**

Point

Reason

.....

(2)

(b) The polo shirt is made from knitted cotton fabric.

Give **two** reasons why knitted cotton is a suitable fabric from which to make the polo shirt.

1

.....

2

.....

(2)



(c) The logo on the fleece top is produced using a computerised embroidery machine.

Give **two** reasons why computer aided embroidery is a suitable process to manufacture the logo.

1

.....

2

.....

(2)

(d) The trousers are made from a laminated fabric.

Give **two** properties of laminated fabric that make it a suitable material for the trousers.

For each property give **one** reason why it makes it suitable.

Property 1

Reason

.....

Property 2

Reason

.....

(4)

(e) The manufacturer of the school uniform uses sampling during production.

Explain **one** reason for sampling during the manufacture of **the seams** on the garments.

.....

.....

(2)

(f) The polyester for the fleece top is finished by brushing.

Explain **one** reason why brushing is used for finishing the fleece top.

.....

.....

(2)



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blank

(g) Two specification points for the school uniform are that it must:

- keep the child warm
- be easy to care for.

Explain under the following headings how the school uniform achieves these purposes.

(i) Keep the child warm.

.....
.....
.....
.....

(2)

(ii) Be easy to care for.

.....
.....
.....
.....

(2)

(Total 22 marks)

Q1

--	--



2. (a) Cotton fabrics can be given a physical finishing process called calendering.

Give **two** changes that calendering has on the appearance of cotton fabric.

1

2

(2)

(b) Fabrics can be given chemical finishes to improve their properties. Mercerising is a chemical finish.

Give **two** reasons why some fabrics are given a mercerised finish.

1

.....

2

.....

(2)

(c) Name **two** biological finishes that can be applied to denim fabric.

1

2

(2)

(d) The appearance of fabrics can be enhanced by printing.

Name **two** different types of printing technique.

1

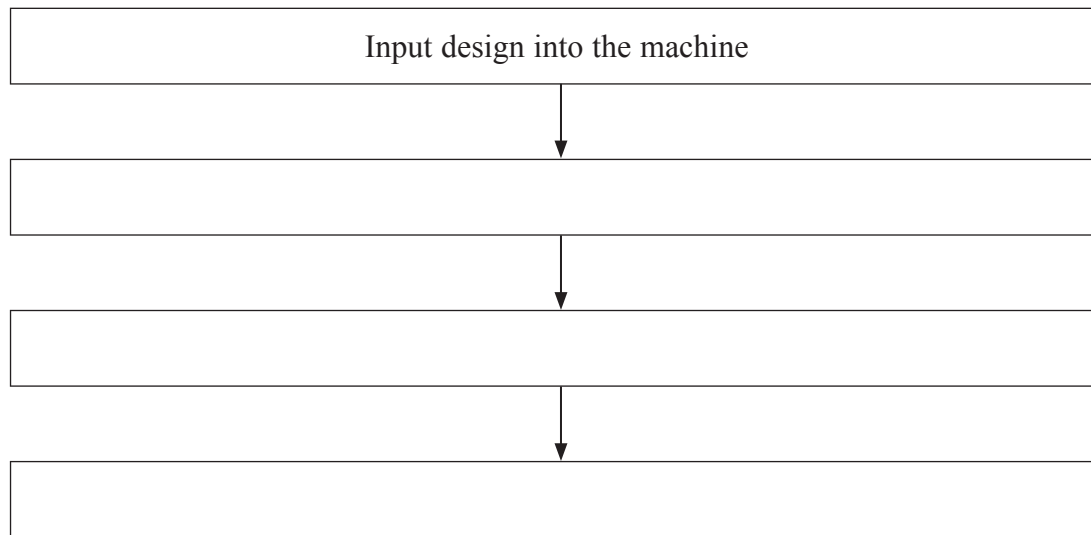
2

(2)



(e) Decoration can be added to clothing using computerised sewing machines.

Complete the flow chart below to show the main stages of adding machine embroidery to a pocket when carried out in the classroom.



(3)

(f) Fashion items bought from high street shops are made using batch production methods.

Give **two** reasons why batch production methods are used for fashion items.

- 1
-
- 2
-

(2)

(g) Computer Integrated Manufacture (CIM) allows CAD and CAM to be integrated, creating a fully automated production process.

Describe **two** advantages to the manufacturer of using a CIM system to produce textile items.

- 1
-
- 2
-

(4)



Leave blank

(h) A pattern technologist is a skilled CAD operator who creates patterns in all sizes for different clothing designs.

State **three** advantages of using a CAD program to create and grade flat pattern pieces.

1

.....

2

.....

3

.....

(3)

(i) ICT can be used to monitor the quality of a product during production.

Describe **one** way ICT is used to monitor quality.

.....

.....

.....

.....

(2)

Q2

(Total 22 marks)



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3. A company is designing a **fabric** educational toy suitable for children aged 4–6 years.

The specification for the toy is that it must:

- teach skills to children aged 4–6 in a fun way
- be made from durable fabric and be easy to care for
- be easy to use and store easily
- be easily suitable for batch production.

(a) In the spaces opposite, use sketches and, where necessary, brief notes to show **two different** design ideas for the **fabric educational toy** that meet this specification.

Do **not** evaluate your designs in part (a).

Candidates are reminded that if 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

Leave
blank

(8)

Design Idea 2

(8)



Leave
blank

(b) Three of the original specification points are repeated below.

Evaluate how one of your design ideas succeeds or fails to meet each of these specification points.

Write down the number of your chosen idea (1 or 2) here:

(i) The fabric toy must teach skills to children aged 4–6 in a fun way.

.....
.....
.....
.....

(2)

(ii) The toy must be made from durable fabric and be easy to care for.

.....
.....
.....
.....

(2)

(iii) The fabric toy must be easy to use and store easily.

.....
.....
.....
.....

(2)

(Total 22 marks)

Q3



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4. (a) Silk is a natural fibre.

(i) Give **four** properties of silk.

- 1
- 2
- 3
- 4

(4)

(ii) Silk is a filament fibre.

Give **two** characteristics of a filament fibre.

- 1
- 2

(2)

(b) Staple fibres have to be twisted together to make a yarn.

Name the **two** types of twist used when making yarns.

- 1
- 2

(2)

(c) Yarns are often blended together to improve the qualities of fabrics.

(i) Give **one** example of a fabric that has been blended.

.....

(1)

(ii) Describe how the qualities of this fabric have been improved by blending.

.....
.....
.....

(2)



(d) Some smart materials change in response to changes in light.

Describe **one** way in which the use of light sensitive fabrics has benefitted the consumer.

.....
.....
.....
.....

(2)

(e) Fashion trends change every season, so some clothes become obsolete even though their quality is still good.

(i) Explain **one** moral issue this could create for the consumer.

.....
.....
.....
.....

(2)

(ii) Give **one** benefit to the consumer of built in obsolescence.

.....
.....

(1)

(f) The use of natural fibres can cause problems for the environment.

Discuss **two** ways the production of **cotton** can cause problems for the environment.

1

.....
.....

2

.....
.....

(4)



(g) Synthetic fibres can be used to make clothing.

Discuss **one** benefit to the environment of using synthetic fibres to make clothing.

.....
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.....
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(2)

(Total 22 marks)

Leave
blank

Q4

TOTAL FOR PAPER: 88 MARKS

END

