

Write your name here

Surname

Other names

Pearson
Edexcel GCSE

Centre Number

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Candidate Number

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

Friday 23 May 2014 – 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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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 fabrics stretches the most?

- A** Felted
- B** Bonded
- C** Woven
- D** Knitted

(Total for Question 1 = 1 mark)

2 Which **one** of the following scales of production produces the greatest volume of products?

- A** One-off
- B** Batch
- C** Job
- D** Mass

(Total for Question 2 = 1 mark)

3 Regenerated fabrics are made from:

- A** chemical sources
- B** natural sources
- C** chemical and natural sources
- D** minerals only

(Total for Question 3 = 1 mark)



4 What is the source of linen fibre?

- A Flax
- B Cotton
- C Wood
- D Paper

(Total for Question 4 = 1 mark)

5 The diagram below shows a commercial pattern marking.



Which **one** of the following does the diagram show?

- A Balance mark
- B Grain line
- C Place on the fold
- D Notch

(Total for Question 5 = 1 mark)

6 A chain-mail glove is commonly worn when using which **one** of the following types of machinery?

- A Industrial sewing machine
- B Cutting machine
- C Heat press
- D Embroidery machine

(Total for Question 6 = 1 mark)

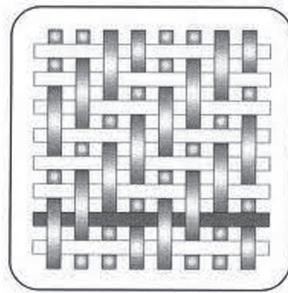
7 Which **one** of the following is a modern material?

- A Acetate
- B Viscose
- C Kevlar®
- D Acrylic

(Total for Question 7 = 1 mark)



8 The diagram below shows a weave.



Which **one** of the following does the diagram show?

- A Herringbone
- B Plain
- C Twill
- D Satin

(Total for Question 8 = 1 mark)

9 Transfer printing applies colour to:

- A the surface of the fabric
- B the fabric using stitching
- C both sides of the fabric at the same time
- D the fabric using wax

(Total for Question 9 = 1 mark)

10 Which **one** of these fabrics snags easily?

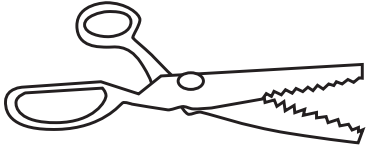
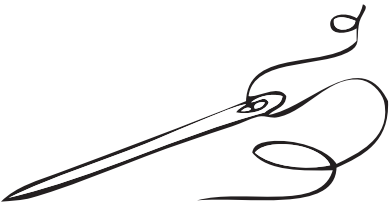
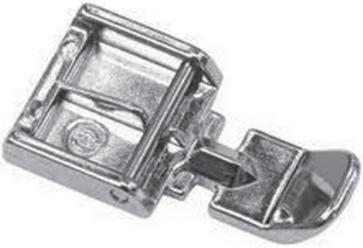

- A Plain
- B Twill
- C Satin
- D Velvet

(Total for Question 10 = 1 mark)



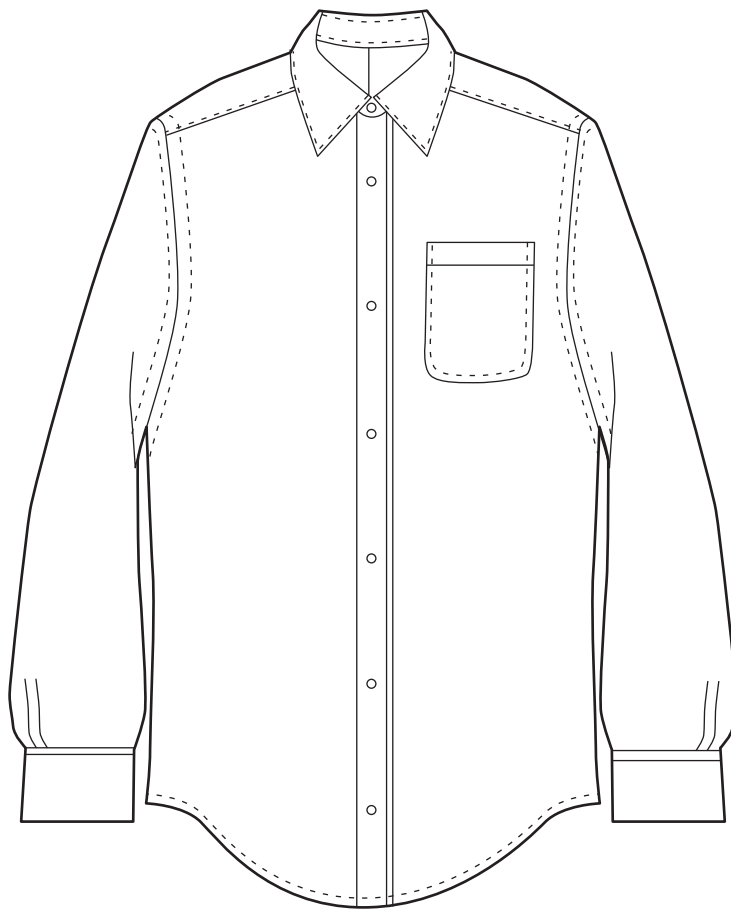
11 (a) The table below shows some tools and equipment.

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

Tools/Equipment	Name	Use
	(1)	Stops fraying, creates decorative edge.
	Needle	(1)
	Zipper foot	(1)
	(1)	For holding fabric taut/flat/stretched when applying decorative stitching.



(b) The picture shows a school shirt made from 100% cotton.



(i) Name **three** benefits of cotton fibre.

(3)

- 1
- 2
- 3

(ii) Describe **one** reason why the cotton fibres of school shirts are commonly blended with polyester.

(2)

-
-
-
-



(c) Name a suitable technique for constructing the seams of the school shirt.

(1)

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(d) The following symbols have been used on the school shirt's care label.

State the meaning of the symbols:

(3)



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(e) The school shirts have been batch produced for a number of schools.

Describe **one** benefit to schools of shirts being produced using the batch production process.

(2)

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(f) The designers have decided to make the school shirt out of organic cotton.

Explain **one** benefit to the environment and **one** ethical benefit to the consumer or manufacturer when considering the use of organic cotton.

(4)

Environmental benefit

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Ethical benefit

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(Total for Question 11 = 19 marks)



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12 A designer has been commissioned to design and make an outfit for a television presenter to wear to a film premiere that will raise awareness of an animal welfare charity.

The specification for the outfit is that it must:

- consist of one item
- highlight the charity's cause
- include a way to carry small personal items
- be easy to put on and take off
- use a construction technique to give it shape or fitting
- include a fabric with a shine or sheen
- include a decorative technique
- be suitable for one-off production.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the outfit 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)

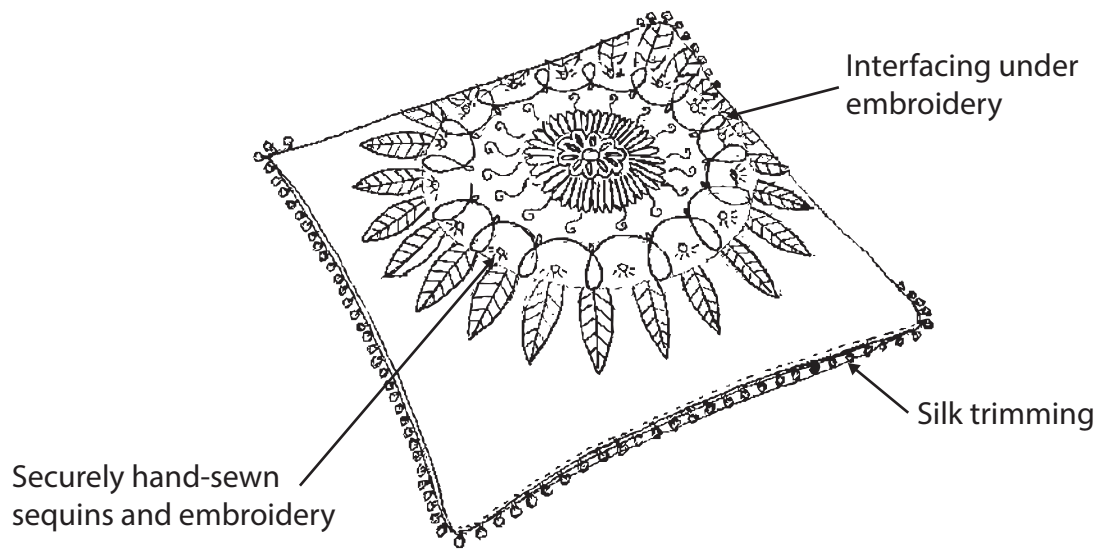
Design idea 2

(8)

(Total for Question 12 = 16 marks)



13 (a) The drawing shows a cushion cover which is made from 100% lambswool felted fabric.



(i) Name **one** property of lambswool that makes it a suitable fibre for the cushion cover and provide a reason why.

(2)

Property

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Reason

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.....

(ii) Name **one** property or characteristic of lambswool which makes it an unsuitable fibre for the cushion cover and provide a reason why.

(2)

Property or characteristic

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Reason

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(iii) Describe **two** reasons why felted fabric has been used for the cushion cover.

(4)

1

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2

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(b) Explain why the cushion cover is successful in meeting the following specification point:

Attractive to users

(2)

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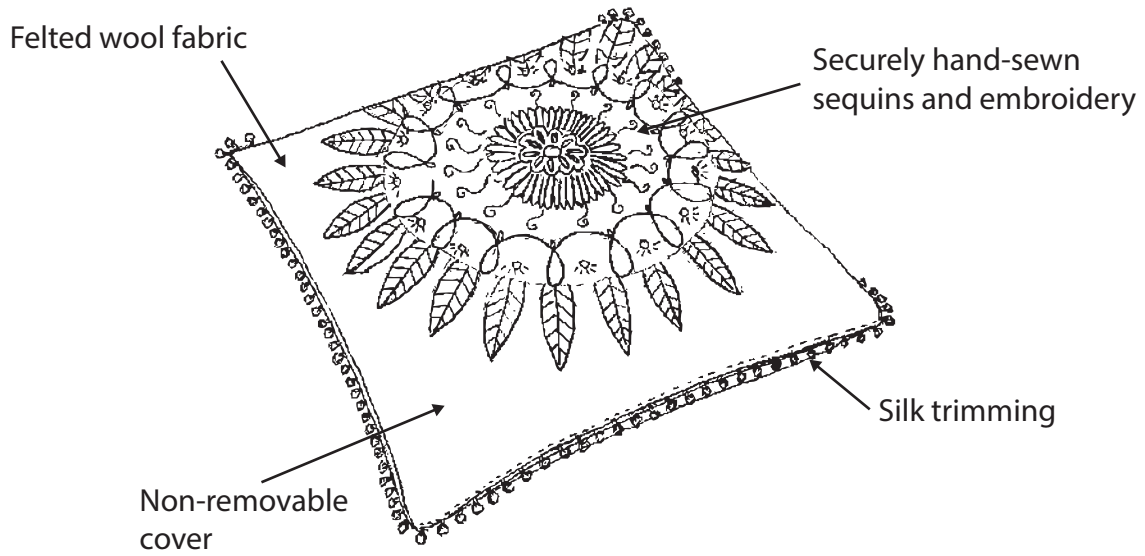
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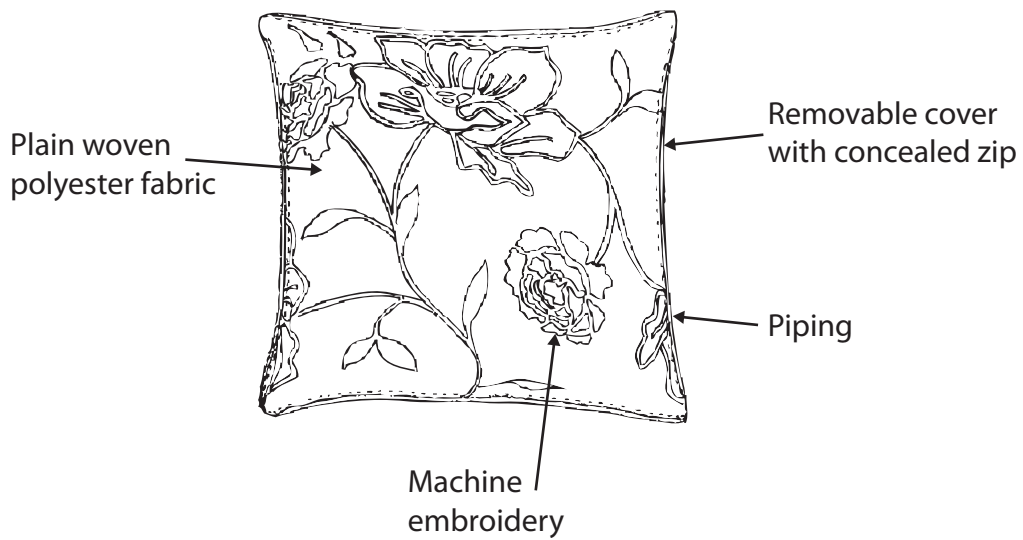
P 4 3 3 5 7 A 0 1 3 2 0

*(c) The drawings below show two different types of cushion.

Cushion A



Cushion B



Evaluate cushion A compared with cushion B in terms of 'function' and 'scale of production'.

(6)

A series of horizontal dotted lines for writing the answer.

(Total for Question 13 = 16 marks)



14 (a) The drawing below shows a tent.



The fabric of the tent is made from 100% polyester.

(i) Name **two** characteristics of polyester fabric that make it suitable for a tent.

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

(4)

Characteristic 1

Reason

Characteristic 2

Reason

(ii) Polyester yarn is made from filament fibres.

State what is meant by a filament fibre.

(1)



The tent has a modern coating.

(iii) Name **two** modern coatings that are suitable for an outdoor product.

For each coating, give one reason for your answer.

(4)

Coating 1

Reason

Coating 2

Reason

(b) Explain **one** benefit of using bonded seams on the tent.

(2)

(c) Outdoor garments are often lined.

Explain **one** advantage of lining an outdoor garment.

(2)



* (d) Integrated electronics are often used in the outdoor textiles industry.

Discuss the advantages and disadvantages to consumers of integrated electronics in outdoor textiles.

(6)

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(Total for Question 14 = 19 marks)

TOTAL FOR PAPER = 80 MARKS



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