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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 25 May 2018 – 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.
- **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.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Answer ALL questions.

Some questions must be answered with a cross ☒. 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 often made as a unique one-off product?

- A t-shirt
- B socks
- C wedding dress
- D school uniform

(Total for Question 1 = 1 mark)

2 Which **one** of the following properties relates to linen fibre?

- A delicate
- B warm
- C absorbent
- D itchy

(Total for Question 2 = 1 mark)

3 In which **one** of the following directions can the bias be found on fabric?

- A diagonally across
- B along the edges
- C parallel to the warp
- D parallel to the weft

(Total for Question 3 = 1 mark)

4 Which **one** of the following resources is needed when making a batik?

- A gutta
- B paper
- C glue
- D wax

(Total for Question 4 = 1 mark)

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5 Which **one** of the following groups of people are responsible for safe working practices?

- A only the workers
- B only the supervisors
- C everyone in the workplace
- D only the managers

(Total for Question 5 = 1 mark)

6 The diagram shows a symbol.



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

- A BSI kitemark
- B age label
- C fire safety
- D CE mark

(Total for Question 6 = 1 mark)

7 Which **one** of the following is **not** a method to reduce fullness?

- A dart
- B pleat
- C gather
- D hem

(Total for Question 7 = 1 mark)

8 Which **one** of the following is a renewable source of energy?

- A biopolishing
- B biomass
- C biometrics
- D biostoning

(Total for Question 8 = 1 mark)



9 Which **one** of the following manufacturing methods is currently used to make lace?

- A warp knitting
- B bonded webs
- C wet felting
- D plain weaving

(Total for Question 9 = 1 mark)

10 Which **one** of the following is a modern microfibre?

- A elastane
- B tencel
- C viscose
- D polyester

(Total for Question 10 = 1 mark)

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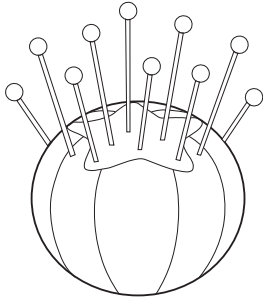

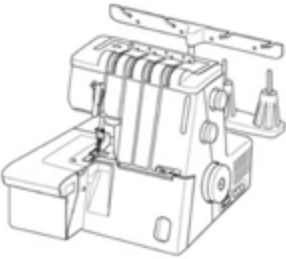
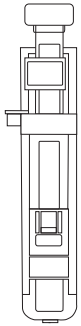
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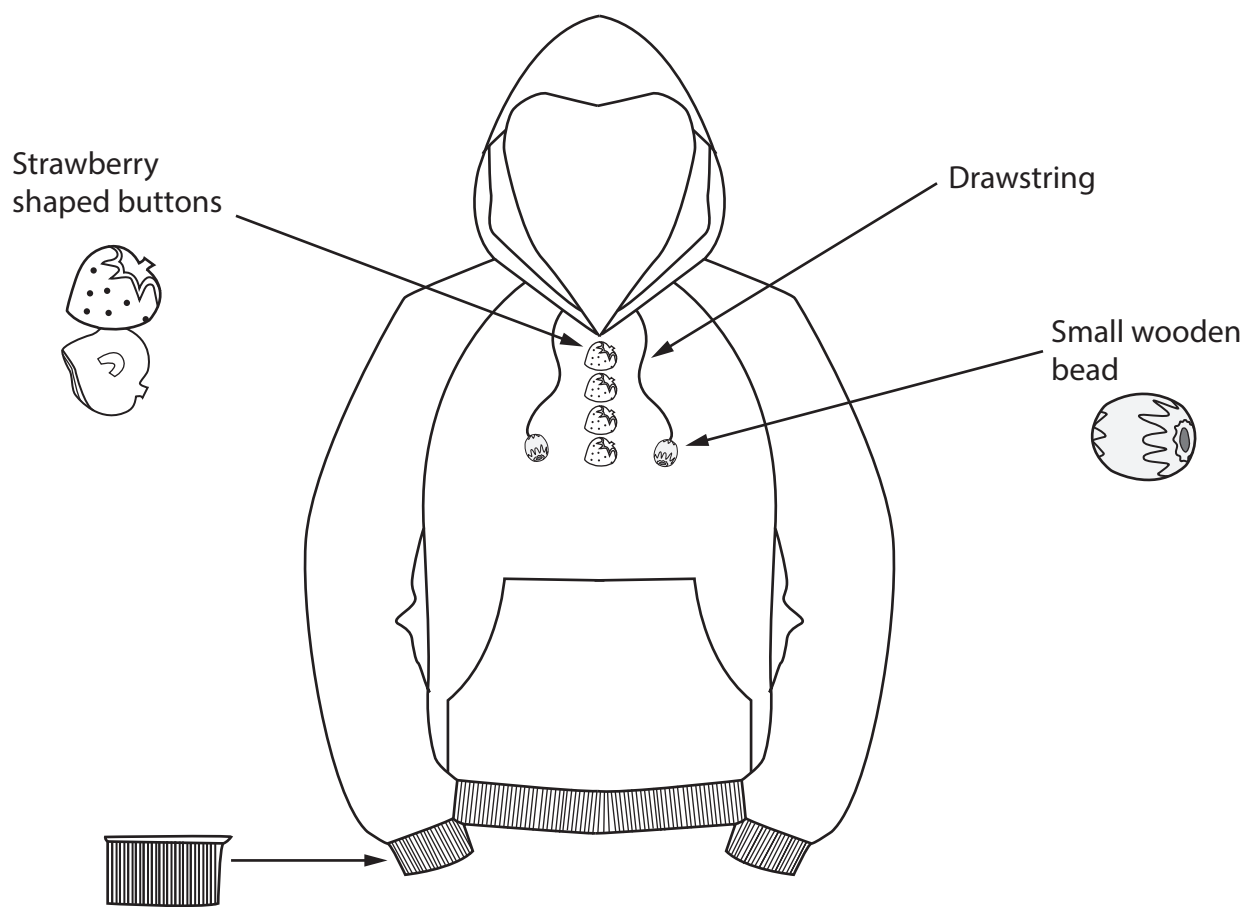
11 (a) The table below shows some components and equipment.

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

Components/Equipment	Name	Use
	Pin cushion	(1)
	Stitch ripper	(1)
	(1)	To bind / finish / strengthen / neaten and join edges whilst trimming / cutting seam edge
	Automatic buttonhole presser foot	(1)



The image below is a design for a hooded top for one to five-year-olds.



(b) State **one** advantage of using the bead component in this position on the hooded top.

(1)

.....

.....



(c) Explain why the hooded top is **not** successful in meeting the following specification point:

(2)

uses safe fastenings.

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(d) Ribbing has been used around the cuffs and lower edge of the hooded top.

Explain **one** benefit of this knitting construction.

(2)

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(e) The manufacturers would like to find the most suitable fabric for the hooded top for use in cold weather.

Name **one** fabric suitable for the hooded top for use in cold weather.

Justify your choice of fabric.

(2)

Name

.....

Justification

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(f) Using notes and sketches, show how you could create a piece of fabric that is felted by hand (do not begin with pre-constructed fabric). Include equipment and quality control checks.

(4)

Blank area for student response.

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(g) (i) Explain why care labelling is used on textile products.

(2)

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(ii) The hooded top will be batch produced and sold on the internet with an on-screen size chart that follows British Standard sizes.

Explain the benefit of British Standard sizing to the customer.

(2)

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(Total for Question 11 = 19 marks)



12 A famous orchestra is celebrating its 25th anniversary. You have been asked to design a carrying case or bag for a musical instrument.

The specification for the case or bag is that it must:

- contain a musical 25th anniversary logo
- provide a secure method of fastening
- be comfortable to carry
- have a specific place to hold music sheets or books
- have a hard wearing textile construction method
- have an outer fabric/finish to protect from wet weather conditions
- include a lining with a decorative resist technique
- incorporate a modern or smart material.

In the spaces opposite, use sketches and, where appropriate, brief notes to show **two** different design ideas for the instrument cover 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 USE THE SPACES OPPOSITE FOR YOUR DESIGNS.



Design idea 1

(8)

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Design idea 2

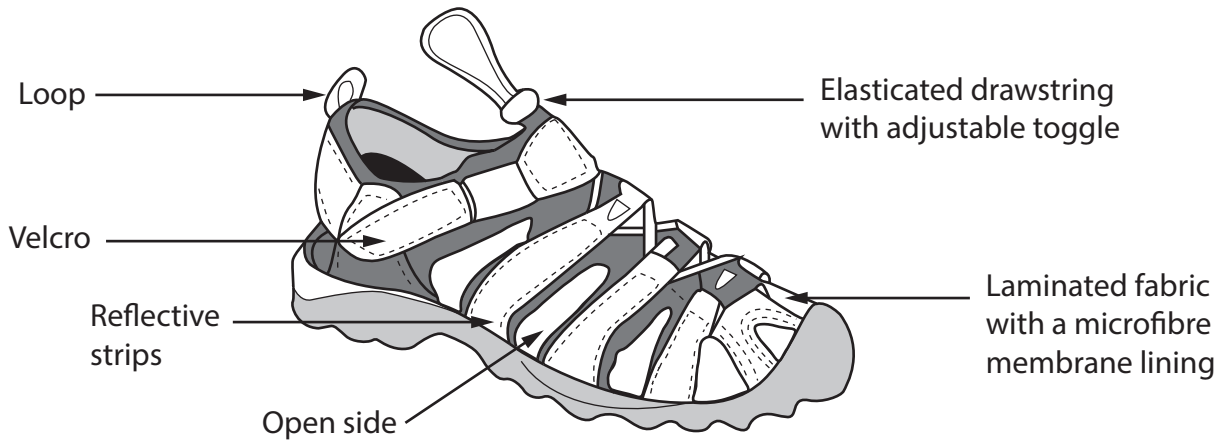
(8)

(Total for Question 12 = 16 marks)

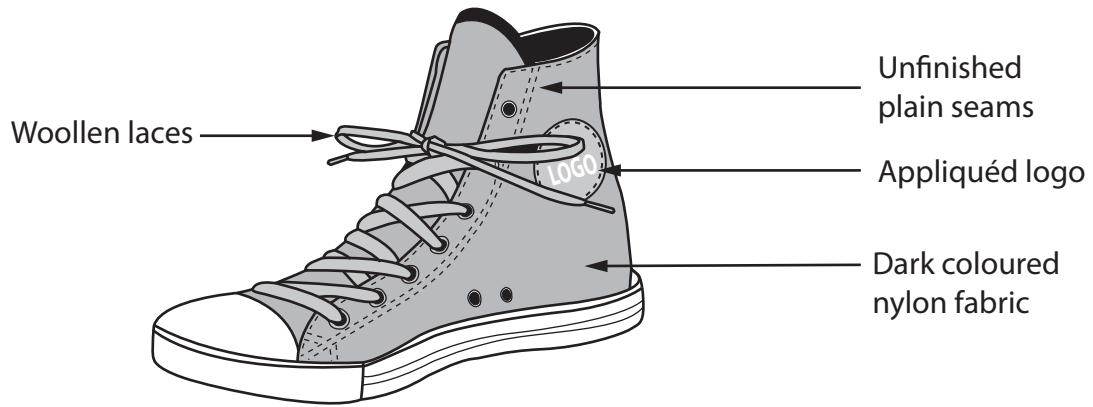


P 5 5 5 5 6 A 0 1 1 2 0

13 The drawings below show two types of footwear that have been designed for use on a walking holiday in hot weather conditions.



Product A



Product B

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(a) Give **two** properties of interfacing that make it a suitable fabric for use in the footwear's structure.

(2)

1

2

(b) Describe **one** reason why nylon yarn is a better choice for the drawstring of the footwear rather than woollen yarn as shown on Product B.

(2)

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(c) Describe **one** disadvantage to the manufacturer of the appliqué method for the footwear's logo as shown on Product B.

(2)

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(d) Wearable electronics have been placed into the sole at the base of the footwear.

State which **two** types of wearable electronics would be most useful to the consumer in the footwear. Justify your answer.

(4)

Type 1

Justification

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Type 2

Justification

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*(e) Evaluate the upper parts (above the sole of the footwear) of Product A and Product B in terms of function and performance requirements.

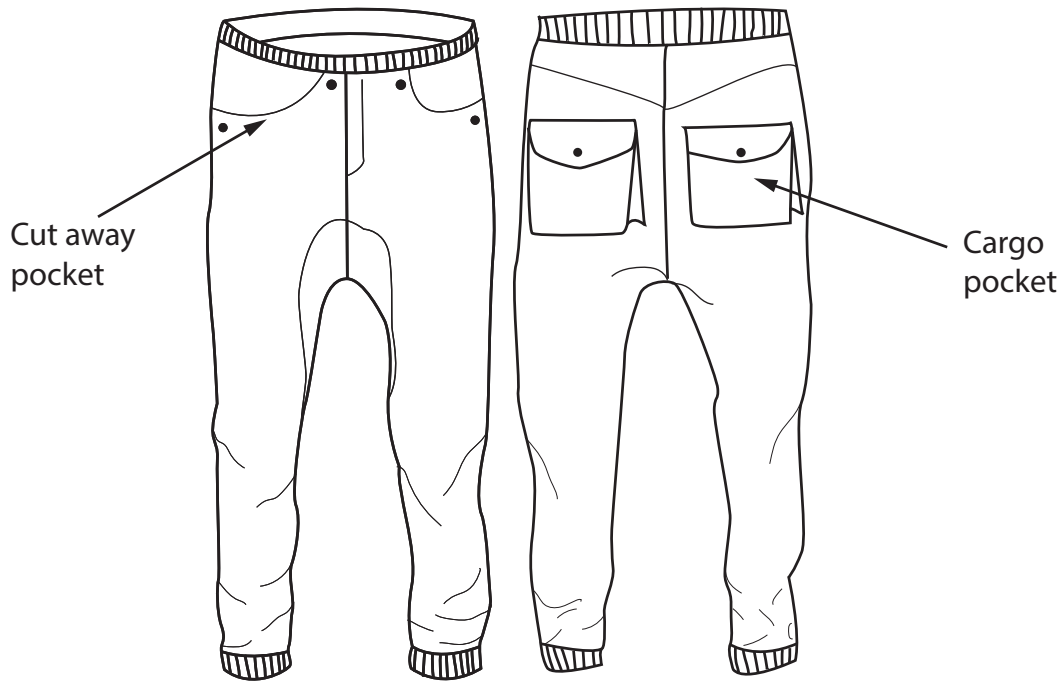
(6)

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(Total for Question 13 = 16 marks)



14 The drawing below shows a pair of jeans made from 100% cotton.



(a) The front and back of the jeans have pockets in them.

(i) State **one** benefit to the wearer of the cut away pocket.

(1)

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(ii) Explain the benefit to the wearer of the gusset on the cargo pocket.

(2)

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(b) Explain **one** disadvantage of using 100% cotton.

(2)

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(c) Describe **two** different characteristics that give traditional denim fabric its distinctive appearance.

(4)

Characteristic 1

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Characteristic 2

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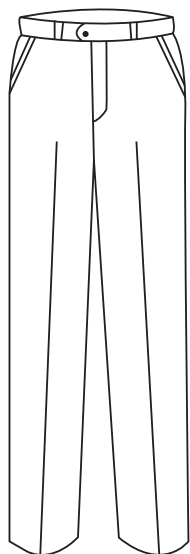
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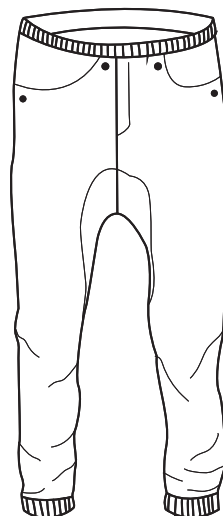
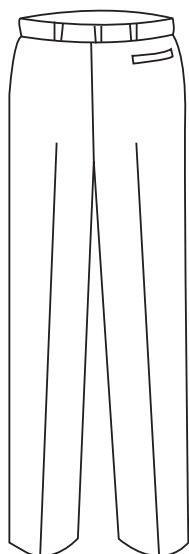
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(d) The drawings below show two types of trouser. The designer needs to choose the most suitable trouser for a formal working environment.



Trouser A



Trouser B

Front and back images

(i) Give **one** feature of Trouser A that makes it suitable for a formal working environment. Justify your answer.

(2)

Feature

Justification

(ii) Give **one** feature of Trouser B that is not suitable for working in a formal environment. Justify your answer.

(2)

Feature

Justification



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*(e) Discuss how Kevlar® has made a positive impact on the world of modern textile materials.

(6)

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(Total for Question 14 = 19 marks)

TOTAL FOR PAPER = 80 MARKS



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