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Pearson Edexcel GCSE		Centre Number	Candidate Number
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Design and Technology: Textiles Technology Unit 2: Knowledge and Understanding of Textiles Technology			
Friday 25 May 2018 – Afternoon		Paper Reference	
Time: 1 hour 30 minutes		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 in a box ☒. 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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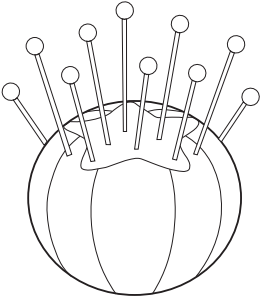

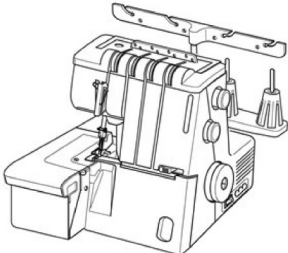
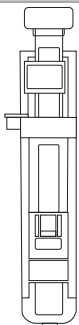
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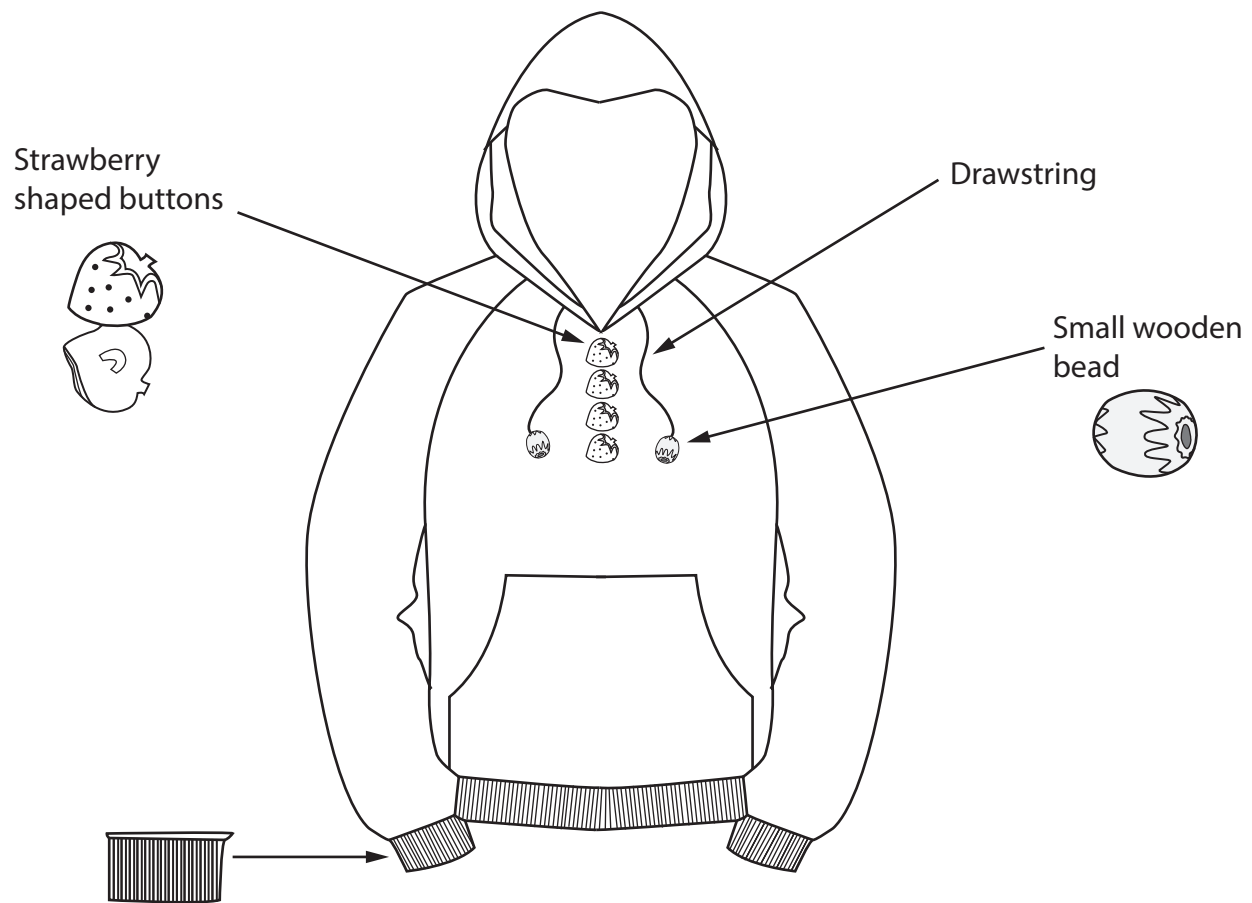
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11 (a) The table below shows some components and equipment.

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.

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

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

(2)

- (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

- (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)

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

(2)

(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)

(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.

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Design idea 1

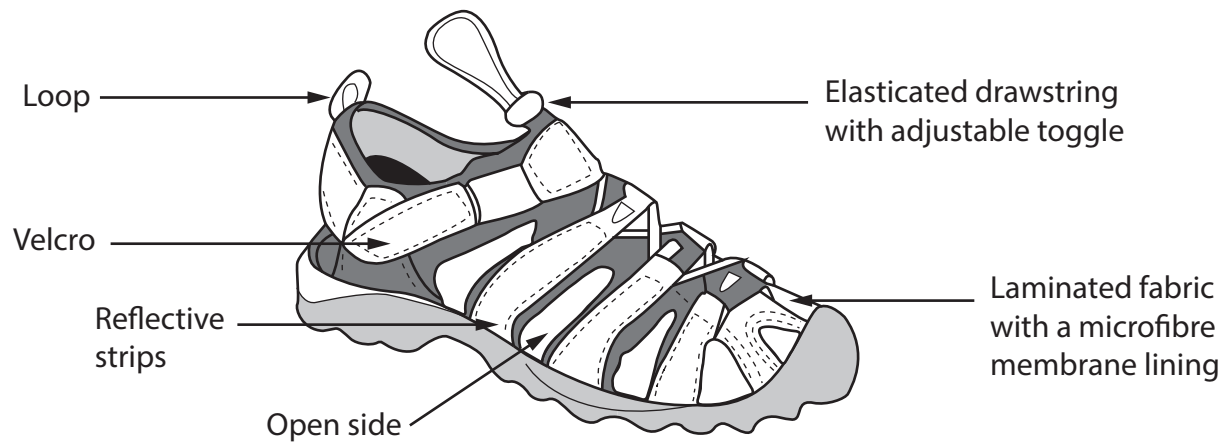
(8)

Design idea 2

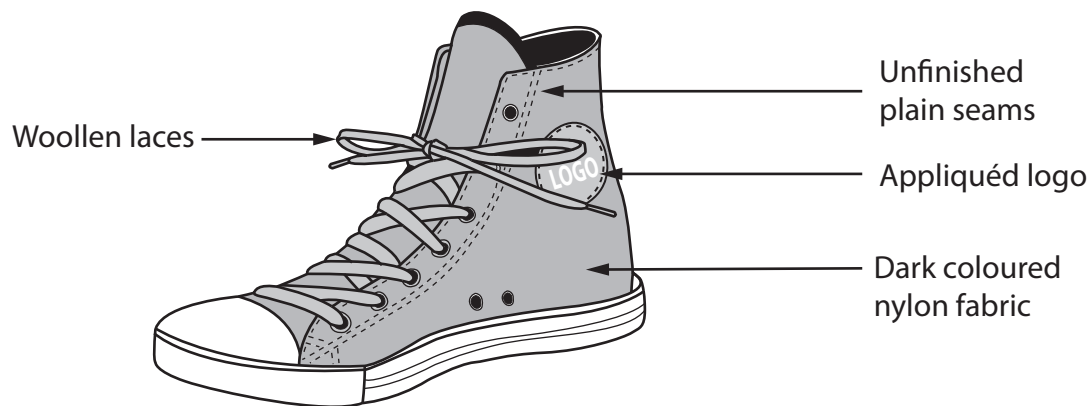
(8)

(Total for Question 12 = 16 marks)

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)

(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)

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

(2)

(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

Type 2

Justification

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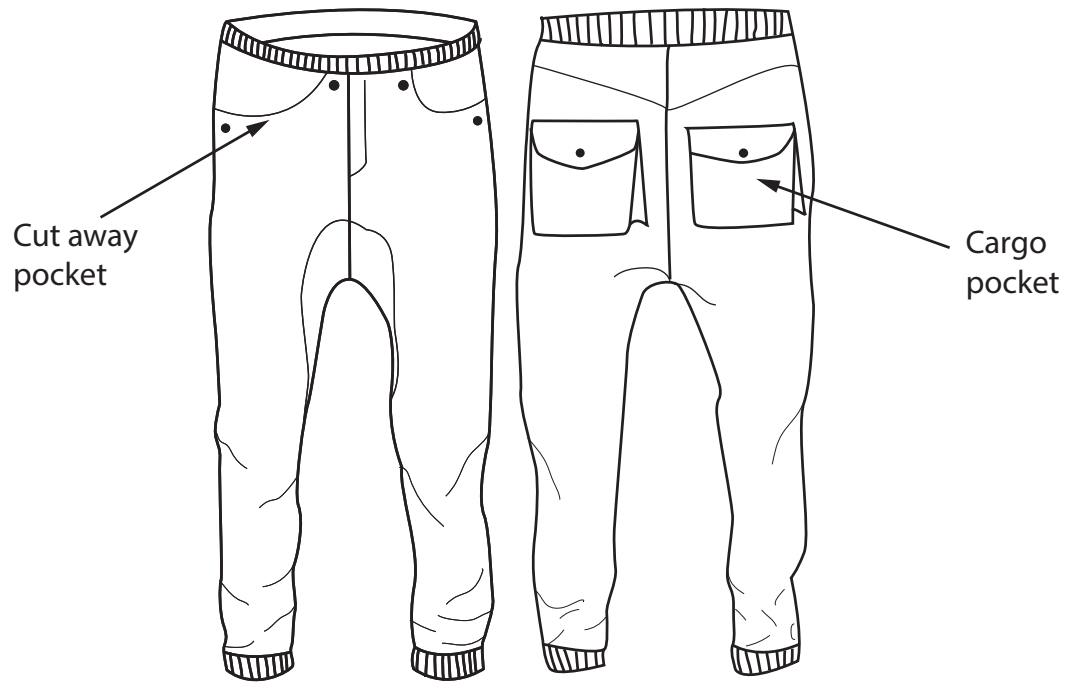
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* (e) Evaluate the upper parts (above the sole of the footwear) of Product A and Product B in terms of function and performance requirements.

(6)

(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)

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

(2)

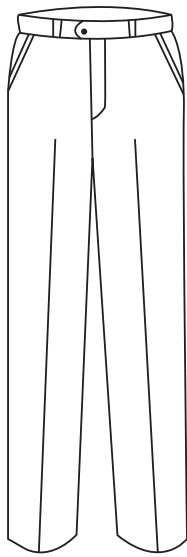
(b) Explain **one** disadvantage of using 100% cotton.

(2)

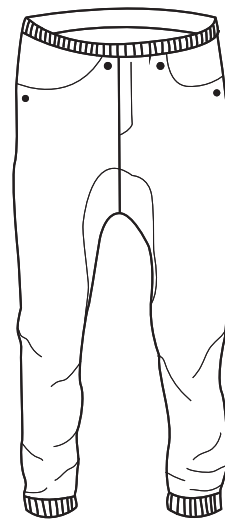
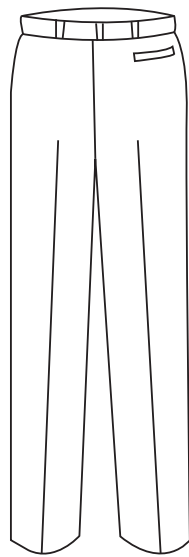
(c) Describe **two** different characteristics that give traditional denim fabric its distinctive appearance.

(4)

- (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)

(Total for Question 14 = 19 marks)

TOTAL FOR PAPER = 80 MARKS

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