

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**

Thursday 21 June 2012 – 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 For which **one** of the following is a zigzag stitch used?

- A Finishing a hem
- B Making pleats
- C Making darts
- D Making a French seam

(Total for Question 1 = 1 mark)

2 The source of cotton fibre is:

- A animal
- B vegetable
- C synthetic polymer
- D natural polymer

(Total for Question 2 = 1 mark)

3 The selvedge can be found on which part of the fabric?

- A Parallel to the weft
- B Diagonally across the fabric
- C Parallel to the warp
- D Through the middle of the fabric

(Total for Question 3 = 1 mark)

4 Which **one** of the following is **not** a renewable source of energy?

- A Wind
- B Solar
- C Biomass
- D Petroleum

(Total for Question 4 = 1 mark)



5 Which **one** of the following does CNC stand for?

- A Computer Nominated Code
- B Computer Number Calculation
- C Computer Numerically Controlled
- D Computer Navigated Creation

(Total for Question 5 = 1 mark)

6 Which **one** of the following techniques provides good heat insulation?

- A Appliqué
- B Embroidery
- C Quilting
- D Patchwork

(Total for Question 6 = 1 mark)

7 Aftercare information of textiles products is important because:

- A it keeps cost down
- B the consumer knows how to maintain the quality and appearance of the product
- C it allows manufacturers to check the product type
- D it looks attractive

(Total for Question 7 = 1 mark)

8 Which **one** of the following is used in biological finishing?

- A Microfibres
- B Bacteria and enzymes
- C Harsh synthetic chemicals
- D Mild synthetic chemicals

(Total for Question 8 = 1 mark)



9 Which **one** of the following is most suitable for use in a swimming costume?

- A Jersey
- B Wool
- C Elastane
- D Towelling

(Total for Question 9 = 1 mark)

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10 A fusible interfacing is one which is applied to fabric by:

- A tacking
- B embroidery
- C adding water
- D ironing

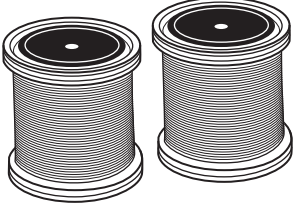
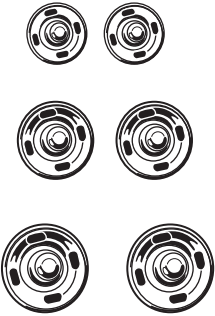
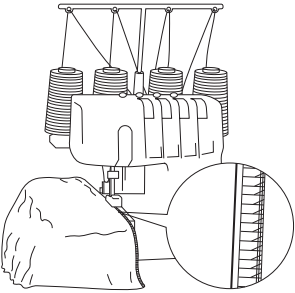

(Total for Question 10 = 1 mark)

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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
	(1)	<p>To create (decorative) stitches</p> <p>To sew things together</p>
	Press studs	(1)
	Overlocker	(1)
	(1)	<p>To transfer markings onto fabric</p> <p>To mark fabric</p>



(b) The drawing below shows a kit made from polyester for a local football team.



Give **two** properties of polyester that make it suitable for a football kit.

For each property, give a reason for your answer.

(4)

Property 1

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Reason

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Property 2

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Reason

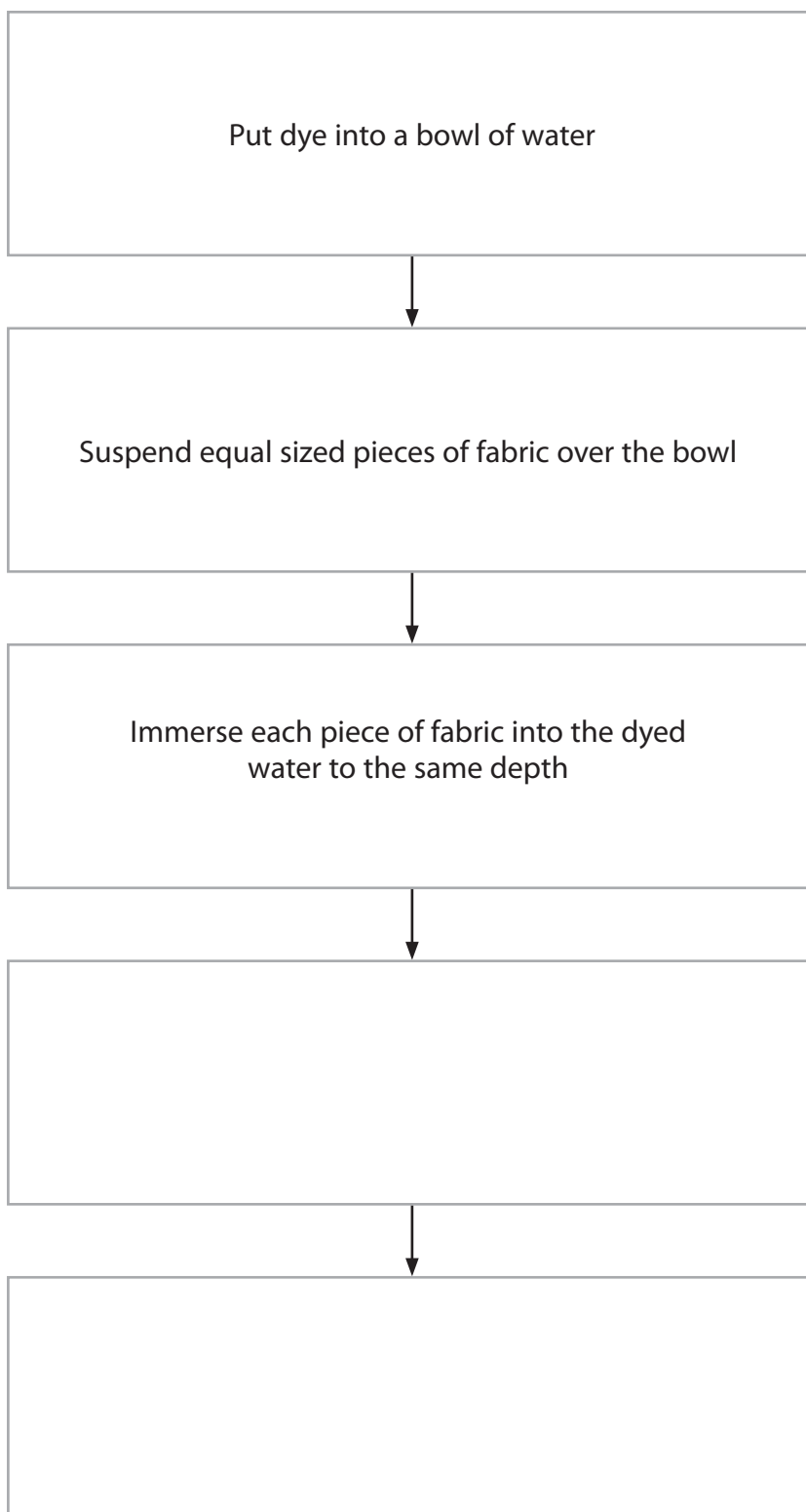
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(c) (i) Complete the flow chart below to show how a test for the absorbency of two fabrics could be conducted in the classroom.

The first three stages have been done for you.

(2)



(ii) Give **one** reason why the third stage is necessary.

(1)

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.....

(d) It is important to stay safe when making products in the classroom.

State a possible hazard of using a sewing machine and describe what precaution you would take to avoid it.

(3)

Hazard

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Precaution

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(e) State how a production line works in mass production.

(1)

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(f) Describe **one** advantage and **one** disadvantage of the one-off method of production.

(4)

Advantage

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Disadvantage

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**(Total for Question 11 = 19 marks)**

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**12** The Perfect Pizza Palace is a fast food restaurant. You have been asked to design a uniform for either a male worker **or** a female worker.

The specification for the uniform is that it must:

- consist of more than one garment
- clearly promote the fast food restaurant
- be comfortable to wear
- be safe to wear
- be easy to care for
- be easy to put on and take off
- include decorative techniques
- be suitable for batch production.

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

**Both** designs must be for either a male **or** a female worker.

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)

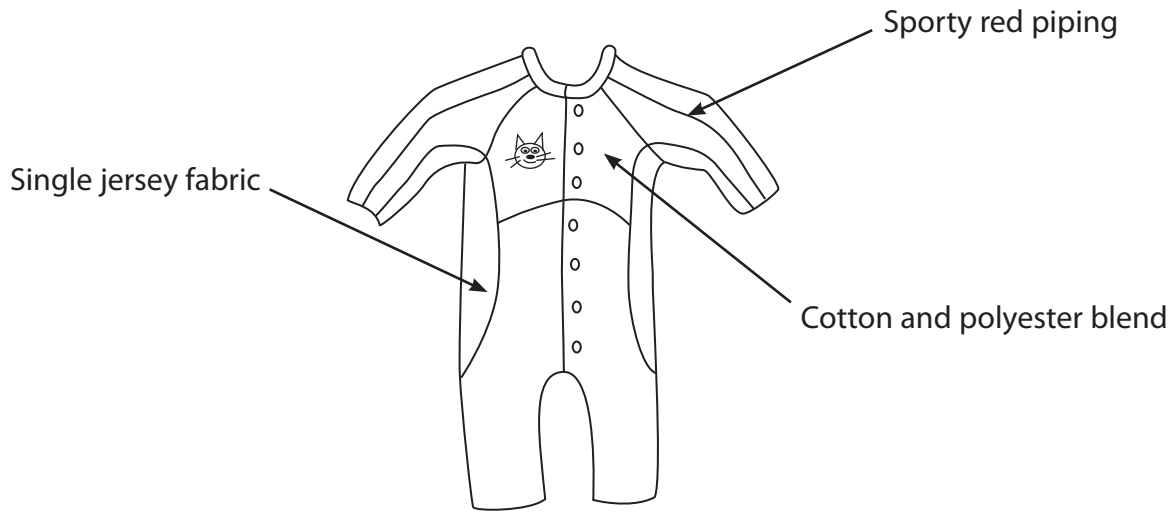
**Design idea 2**

(8)

**(Total for Question 12 = 16 marks)**



13 The drawing below shows an all-in-one baby outfit.



The outfit is made from single jersey fabric.

(a) (i) Give **two** characteristics of single jersey fabric that make it a suitable material for the outfit.

For each characteristic, justify your answer.

(4)

Characteristic 1

Justification

Characteristic 2

Justification



(ii) The outfit is made from a blend of cotton and polyester.

Describe the difference between the following when used in the product:

- a blend of cotton and polyester
- a cotton/polyester mixture.

(2)

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(b) Explain how the outfit is successful in meeting the following specification points:

(i) cool to wear

(2)

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(ii) unisex.

(2)

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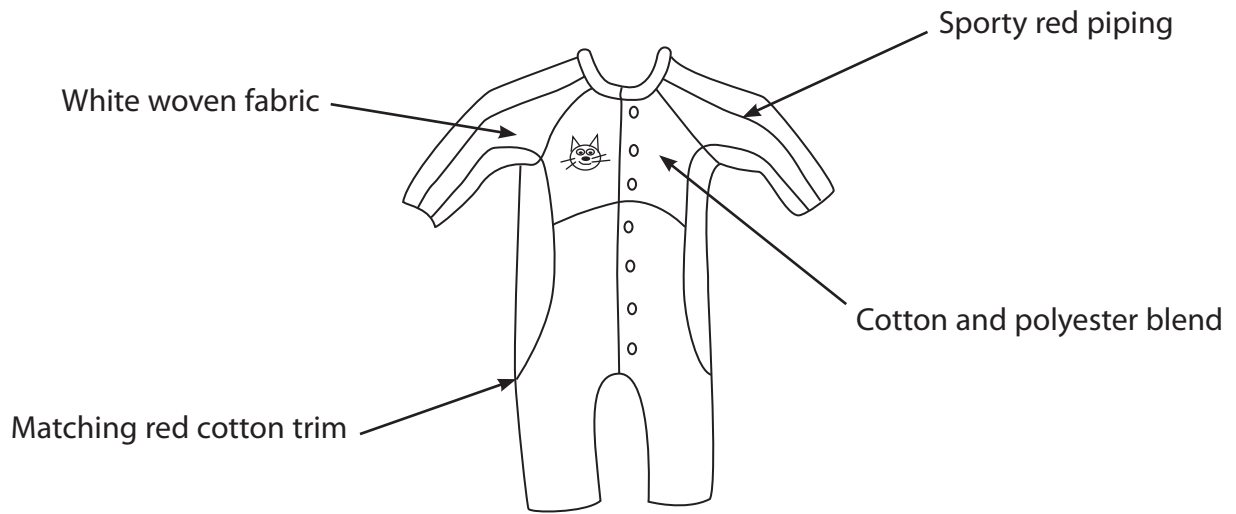
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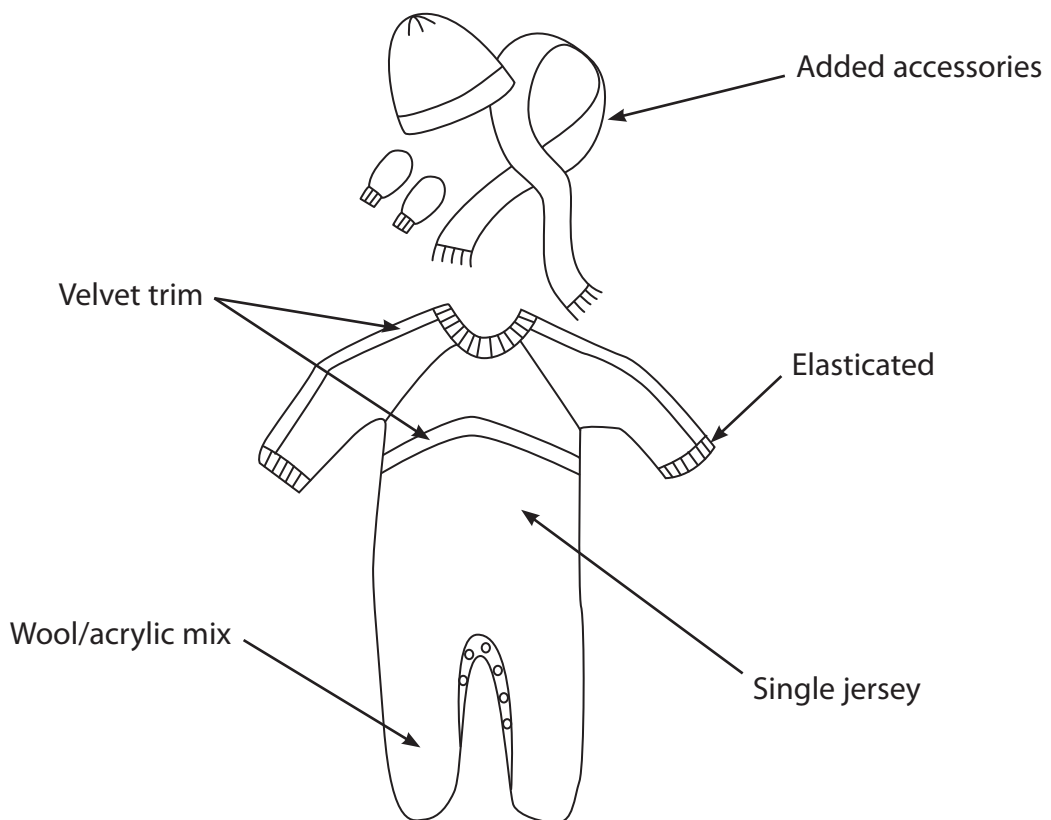


The diagrams below show two outfits for a baby.

**Outfit A**



**Outfit B**



\* (c) Evaluate the suitability of outfit A compared with outfit B as a winter gift for a baby to wear in terms of 'form and function'.

(6)

A series of horizontal dotted lines for writing an answer to the question.

(Total for Question 13 = 16 marks)



14 (a) (i) Name a textiles product that is commonly made from Kevlar®. (1)

.....

(ii) Give **two** benefits of Kevlar®. (2)

1 .....

2 .....

(b) (i) Name **two** dyeing methods that are achieved using the resist technique. (2)

1 .....

2 .....

(ii) Explain why it is difficult to achieve consistency when producing a repeat print on fabric using the hand method of block printing. (2)

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(c) Give **one** advantage and **one** disadvantage of the slip stitching method of finishing a hem. (2)

Advantage

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Disadvantage

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(d) Explain why it is necessary to press a product during manufacture.

(2)

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(e) Describe **one** disadvantage to the consumer when purchasing products using the internet.

(2)

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A trend in the textiles industry is for 'fast fashion'. Many stores work on a six season year, changing stock every six to eight weeks.

**\* (f) Discuss the moral and social issues that arise from manufacturers and retailers promoting this type of buying culture.**

**(6)**

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**(Total for Question 14 = 19 marks)**

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**TOTAL FOR PAPER = 80 MARKS**

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