

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
TOTAL	



General Certificate of Secondary Education  
June 2015

# Design and Technology: Textiles Technology

**45701**

## Unit 1 Written Paper

Tuesday 19 May 2015 9.00 am to 11.00 am

**For this paper you must have:**

- a black pen, a pencil, a ruler, an eraser, a pencil sharpener and coloured pencils.

**Time allowed**

- 2 hours

**Instructions**

- Use black ink or black ball-point pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this answer book. Cross through any work you do not want to be marked.

**Information**

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 120.
- Section A relates to the context given in the Preliminary Material that was previously issued.
- You are reminded of the need for good English and clear presentation in your answers. Quality of Written Communication will be assessed in Question 4(b).



J U N 1 5 4 5 7 0 1 0 1

**Section A**

Answer this question in the spaces provided.

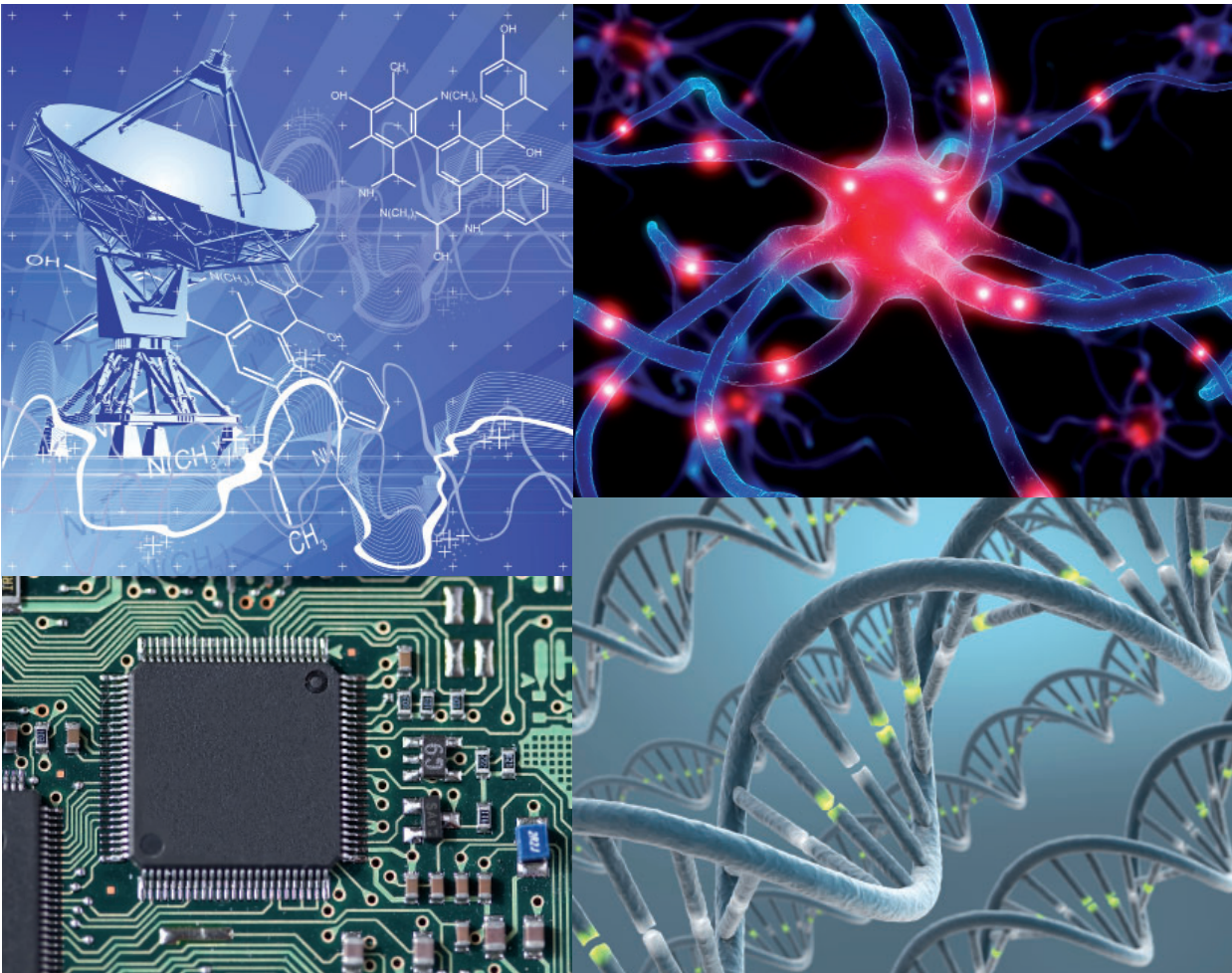
Question 1 is about design ideas for an item of fashionable clothing.

You should spend about 35 minutes on this question.

**Design Brief**

You are going to design an item of fashionable clothing inspired by the theme of 'science and technology'.

Here is a mood board based on the theme science and technology.



**1 (a)** Trend forecasts show that science and technology will be a popular theme for fashion.  
Give **two** different types of information included in a trend forecast.

An example is given below:

Patterns for printed, woven and knitted fabrics.

**[2 marks]**

**1** .....

.....

**2** .....

.....

**Question 1 continues on the next page**

**Turn over ▶**



**1 (b)** Sketch **two** different initial design ideas for an item of fashionable clothing.

Do not use colour.

The item of fashionable clothing must:

- be based on the theme science and technology
- include a range of fabrics.

There are 6 marks for **each** design idea. Marks will be given for:

- creativity and originality of idea based on the theme
- use of a range of fabrics
- quality of notes and sketches.

**[2 marks]**

**[2 marks]**

**[2 marks]**

**Design idea A**



**Design idea B**

**1 (c)** Tick the box to show the idea you have chosen to develop.

**Design idea A**

**Design idea B**

Give **three** different ways of using electronic components to make the item of fashionable clothing more exciting.

**[3 marks]**

- 1 .....
- .....
- 2 .....
- .....
- 3 .....
- .....

**Turn over ▶**



**1 (d)** Use sketches, labelling and notes to present a final design in colour for your item of fashionable clothing.

Include at least **one** electronic component in your design.

Use this page and the next page to show your item of fashionable clothing in presentation drawings.

Marks will be given for:

- creativity and quality of design including decorative techniques **[5 marks]**
- use of a range of fabrics inspired by the science and technology theme **[3 marks]**
- use of components, including at least **one** electronic component **[3 marks]**
- effective use of colour **[3 marks]**
- presentation of the final idea including different views of the item of fashionable clothing. **[2 marks]**



Question 1 continues on the next page

Turn over ▶



1 (e) Give **two** methods of testing your final design idea.

**[2 marks]**

**Method 1** .....

.....

**Method 2** .....

.....

<b>35</b>





**Turn over for the next question**

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ANSWER IN THE SPACES PROVIDED**

**Turn over ▶**



**Section B**

Answer all questions in the spaces provided.

Question 2 is about designing a product that is fit for purpose.

You should spend about 15 minutes on this question.

- 2 Look at the seats in the two photographs below.

**Bus seats**



**Child car seat**



**2 (a)** Passengers sit on bus seats every day, all through the year.

In the table below, list and explain **three** specification points for the bus seat fabric specification.

The first row of the table has been completed with an example for you.

**[6 marks]**

Specification Point	Reason
Must be fade resistant	So that it keeps bright and fresh

**2 (b) (i)** The bus seat fabric is made from a blend of 90% wool and 10% nylon.

Give **two** reasons why this is a suitable fibre blend for the bus seat fabric.

**[2 marks]**

**Reason 1** .....

**Reason 2** .....

**Question 2 continues on the next page**

**Turn over ▶**





Question 3 is about product analysis and fabrics.

You should spend about 10 minutes on this question.

3 Look at the clothing worn by the **two** cyclists in the photographs below.

**Cyclist A**



**Cyclist B**



3 (a) Fill in the table below to compare the clothing worn by the **two** cyclists.

The first row of the table has been completed with an example for you.

[3 marks]

Cyclist A	Cyclist B
Short trouser legs	Full length trousers

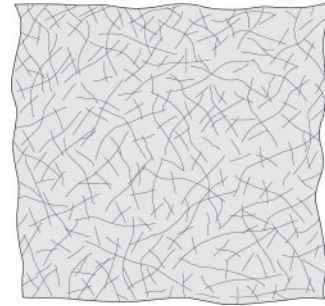
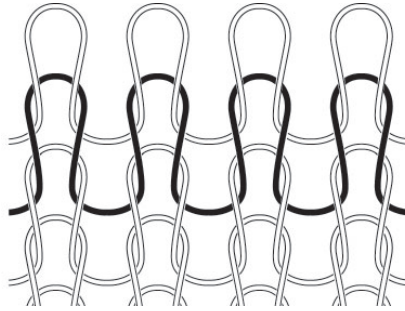
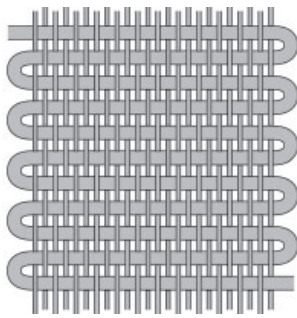
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**3 (b) (i)** Look at the clothing worn by Cyclist B.

Tick the box to show the method of fabric construction used for Cyclist B's clothing.

**[1 mark]**






**3 (b) (ii)** Give the name for the construction method used for Cyclist B's clothing.

**[1 mark]**

.....

**3 (b) (iii)** Give **two** reasons for using this type of fabric construction.

**[2 marks]**

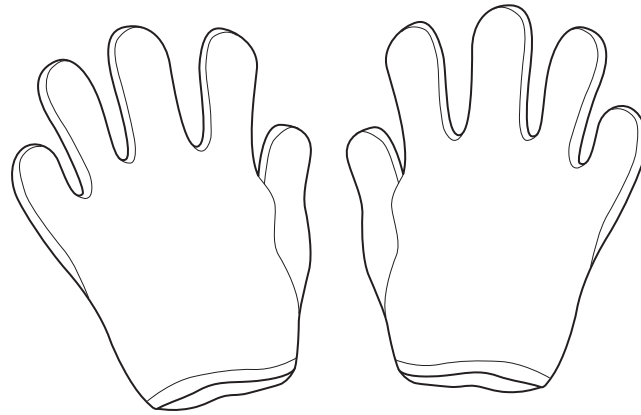
**Reason 1** .....

**Reason 2** .....



**3 (c)** Look at the gloves in the drawing below.

Cyclist B wears these plain black gloves in winter.



**3 (c) (i)** Name a modern fabric for the gloves.

**[1 mark]**

.....

**3 (c) (ii)** Describe **two** improvements which could be made to the design of the cycling gloves that would increase comfort or safety when cycling in winter.

**[4 marks]**

**Improvement 1** .....

.....

.....

**Improvement 2** .....

.....

.....

12

**Turn over ▶**



Question 4 is about components.

You should spend about 15 minutes on this question.

**4 (a)** Look at the shoe fastenings in the pictures below.

State the component used for each method of fastening.

The box has been completed with an example for you.

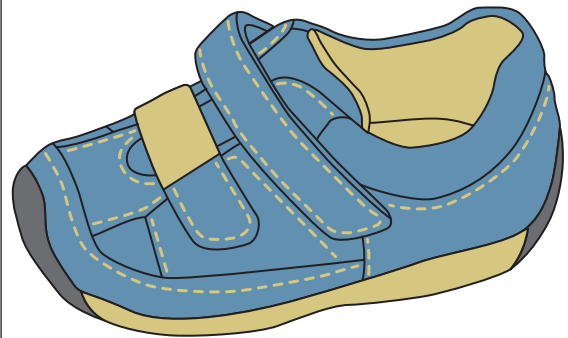
**[4 marks]**



Component ..... Ribbon .....



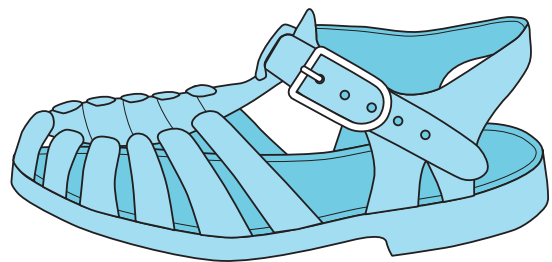
Component.....



Component.....



Component.....



Component.....







Question 5 is about production planning, manufacturing processes and health and safety.

You should spend about 25 minutes on this question.

**5 (a)** The drawing below is part of a manufacturing specification for a jacket.



**5 (a) (i)** What is the name of this type of drawing?

**[1 mark]**

.....

**5 (a) (ii)** The top pocket needs to be in a certain place.

How can the drawing be improved to give this information?

**[1 mark]**

.....



**5 (a) (iii)** List **three** different pieces of information included on a jacket manufacturing specification.

An example is given below:

A drawing of the jacket.

**[3 marks]**

- 1 .....
- 2 .....
- 3 .....

**5 (a) (iv)** Give **three** reasons why it is important to have a manufacturing specification.

**[3 marks]**

- 1 .....
- .....
- 2 .....
- .....
- 3 .....
- .....

**5 (b) (i)** Name **two** types of seam.

**[2 marks]**

- 1 .....
- 2 .....

**Question 5 continues on the next page**

**Turn over ▶**



**5 (b) (ii)** In the box below use notes and sketches to explain **one** method of making a seam.

Marks will be given for:

- step-by-step instructions **[2 marks]**
- quality of notes and sketches **[2 marks]**
- name of seam **[1 mark]**
- equipment needed. **[1 mark]**

Name of seam .....



5 (c) (i) Describe **three** dangers of working on an industrial sewing machine.

[3 marks]

1 .....

.....

2 .....

.....

3 .....

.....

5 (c) (ii) List **three** safety measures to help prevent injury when working on an industrial sewing machine.

[3 marks]

1 .....

2 .....

3 .....

5 (c) (iii) Explain what is meant by the term 'risk assessment'.

[2 marks]

.....

.....

.....

24

Turn over for the next question

Turn over ▶



Question 6 is about decorative techniques and moral and environmental issues.

You should spend about 10 minutes on this question.

Look at the decorative techniques in the photograph below.

- 6 This wall hanging is made in India from unwanted clothing.



- 6 (a) Name **three** decorative textile techniques used on the wall hanging in the photograph above.

[3 marks]

Technique 1 .....

Technique 2 .....

Technique 3 .....



6 (b) The wall hanging packaging includes the following symbols.



Explain why the wall hanging is a sustainable product.

[4 marks]

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7

Turn over for the next question

Turn over ▶



Question 7 is about social, moral and cultural issues and ICT.

You should spend about 10 minutes on this question.

7 Look at the Scottish bagpiper in the photograph below.



7 (a) (i) The Scottish bagpiper is wearing an ostrich feather hat and the bagpipes are made from animal hide.

Explain why some people may be against the use of these materials.

[2 marks]

.....

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.....

.....





7 (a) (ii) The Scottish bagpiper is wearing a kilt of wool tartan fabric.

Why is the wool tartan fabric suitable for a kilt?

[2 marks]

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

7 (b) (i) The manufacturer of tartan fabric needs an illustration of a Scottish bagpiper.

Give **two** different graphic techniques that could be used to add colour to the illustration.

[2 marks]

Graphic technique 1 .....

Graphic technique 2 .....

7 (b) (ii) Explain the advantages of using a computer to design, present and communicate drawings?

[4 marks]

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10

END OF QUESTIONS



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