

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

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



General Certificate of Secondary Education
June 2013

Design and Technology: 45701 Textiles Technology

Unit 1 Written Paper

Wednesday 22 May 2013 1.30 pm to 3.30 pm

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 book. Cross through any work that you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 120.
- The question in Section A relates to the context referred to 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 5 (a) (i).



J U N 1 3 4 5 7 0 1 0 1

Section A

You should answer this question.

Question 1 is about design ideas for a textile product.

You should spend about 35 minutes on this question.

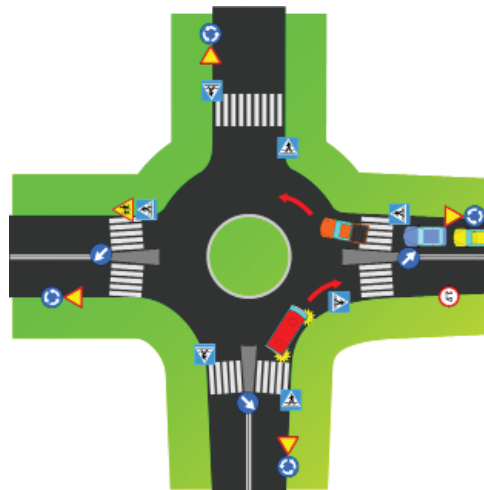
Design Brief

You are asked to design a textile product for a child.

The textile product must:

- be inspired by the theme of worldwide transport
- be educational
- be interactive.

Here are some images that you could use to help you.



1 (a) (i) Give **two** design criteria for the textile product for a child.

Examples are given below.

Must be inspired by the theme of worldwide transport.

Must be educational and interactive.

Design criteria 1.....

.....

Design criteria 2.....

.....

(2 marks)

1 (a) (ii) You will need to sketch your initial design ideas before you develop your final product design.

Do not use colour.

Using the design brief, sketch and label **two** different design ideas for a textile product for a child.

You should show these ideas on the next page.

Marks will be awarded for **each** design idea as follows:

- creativity and originality of idea inspired by worldwide transport (2 marks)
- quality of notes and sketches (2 marks)
- educational and interactive features. (2 marks)

Question 1 continues on the next page

Turn over ▶



Use a pencil to sketch and label **two** different design ideas based on the design brief.

Design idea A

Design idea B



Choose **one** of your design ideas from page 4 for development.

Tick the box to show the idea you have chosen to develop.

Design idea A

Design idea B

1 (b) Products for children are designed for different age groups.

Give the age range for your chosen design idea. Explain why it will appeal to children of this age.

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(3 marks)

Question 1 continues on the next page

Turn over ▶



1 (c) (i) Children's products are often sold in a fabric bag as part of the packaging.

Develop your chosen design idea from page 4 to include a fabric bag for the child's textile product.

Use sketches, labelling and notes to present a final design in colour for the child's textile product and the fabric bag.

Use this page and the next page.

Marks will be given for:

- creativity and quality of child's textile product including fabric bag (5 marks)
- educational and interactive ideas including choice of fabrics and components (4 marks)
- effective use of colour (3 marks)
- quality of presentation (3 marks)
- use of worldwide transport theme. (2 marks)



Question 1 continues on the next page

Turn over ▶



1 (c) (ii) Circle the correct safety symbol to put on the child's textile product.



(1 mark)

35



Section B

You should answer **all** questions in this section.

Question 2 is about processes and manufacture.

You should spend about 15 minutes on this question.

2 Look at the wedding dress in the photograph below.



2 (a) (i) The fabric for this wedding dress is made from silk fibre.

Explain why silk is suitable for the wedding dress.

.....

.....

.....

.....

(2 marks)

Turn over ▶



2 (a) (ii) Give **two** disadvantages of using silk for this wedding dress.

Disadvantage 1

.....

Disadvantage 2

.....

(2 marks)

2 (a) (iii) Name a synthetic fibre which could be used to make a similar fabric for this wedding dress.

.....

(1 mark)

2 (b) Manufacturers use different kinds of production systems to make dresses.

Draw a line to link **each** product description to the production system used to manufacture the product.

Product description

Production system

Summer 2013 dresses for a high street store

One-off production

Wedding dress made for a royal wedding

Mass production

Supermarket school uniform gingham summer dress

Batch production

Wedding dress made for a high street wedding dress shop

(4 marks)



2 (c) Look at the photograph below of factory workers making dresses.



2 (c) (i) Name the production system shown in the photograph.

.....
(1 mark)

2 (c) (ii) Explain why this production system is best for large orders of simple dresses.

.....
.....
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.....
.....
(3 marks)

Question 2 continues on the next page

Turn over ▶



2 (c) (iii) Quality Assurance makes sure that the dresses are made to the correct standard.

Give **three** methods of Quality Assurance.

An example is given below.

Train the workforce

Method 1.....

.....

Method 2.....

.....

Method 3.....

.....

(3 marks)

16



Question 3 is about product analysis.

You should spend about 15 minutes on this question.

3 Study the workwear trousers in the photograph below.



3 (a) (i) Explain why a trouser back pocket is not a good place to put work tools.

.....

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(2 marks)

Question 3 continues on the next page

Turn over ▶



3 (a) (ii) Suggest **three** suitable textile products the worker, shown on page 13, could use for the work tools instead of the trouser back pocket.

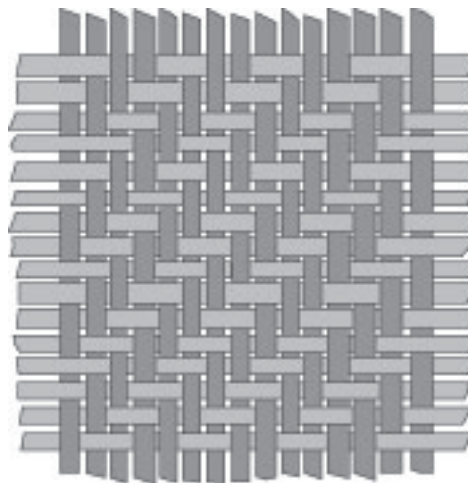
Product 1

Product 2

Product 3

(3 marks)

3 (b) The diagram below shows a close up view of the workwear trouser fabric.



3 (b) (i) Name the type of fabric construction in the diagram above.

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.....

.....

.....

(2 marks)

3 (b) (ii) Name a suitable workwear fabric made from this construction method.

.....

(1 mark)



3 (b) (iii) Give **two** reasons why this fabric is fit for purpose.

Reason 1

.....

Reason 2

.....

(2 marks)

3 (c) Explain why some school trouser labels include the following symbol.

Teflon[®]

.....

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.....

.....

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(3 marks)

3 (d) Describe **two** fabrics which can be used to make clothing safe for someone working in low light conditions.

Fabric 1

.....

Fabric 2

.....

(2 marks)

15

Turn over for the next question

Turn over ▶



Question 4 is about computer technology and market influences.

You should spend about 15 minutes on this question.

4 Designers use computers to find out information.

4 (a) (i) List **three** types of computer research useful to designers.

An example is given below.

Trend forecasts

Type 1.....

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Type 2.....

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Type 3.....

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(3 marks)

4 (a) (ii) Explain how computer technology and communication are used to present research findings.

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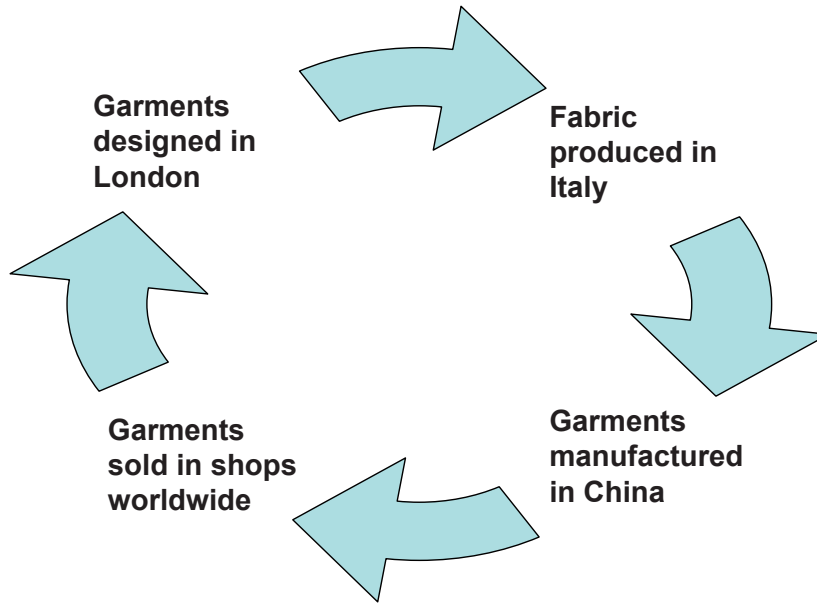
.....

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(4 marks)



4 (b) The diagram below shows how people worldwide work together to produce garments.



4 (b) (i) Discuss the advantages of using computers to link the stages in the diagram above.

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(5 marks)

4 (b) (ii) Shop sales data shows that red garments are selling faster than other colours.

Explain how a retailer will use this data.

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(2 marks)

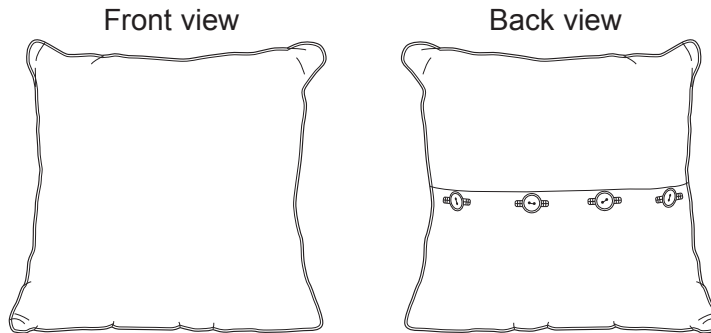
Turn over ▶



Question 5 is about product design and sustainability.

You should spend about 25 minutes on this question.

5 The cushion cover shown below is very plain.



5 (a) (i) Describe some dyeing, printing and surface techniques that could be used to make a decorative cushion cover. Include a range of fabrics and decorative components.

Quality of Written Communication (QWC) will be assessed in this question.

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(8 marks)

5 (a) (ii) Use notes and diagrams to explain **one** method of dyeing or printing, or a surface decorative technique.

Marks will be awarded as follows:

- naming of the technique *(1 mark)*
- step-by-step instructions including equipment needed *(3 marks)*
- quality of notes and sketches. *(2 marks)*

Turn over ▶



5 (a) (iii) The cushion cover is fastened with buttons.

Give **three** different components that could be used instead of buttons.

Component 1

Component 2

Component 3

(3 marks)

5 (b) This logo is on product labels for some decorative cushions.



5 (b) (i) List **three** principles of Fairtrade.

Principle 1

.....

Principle 2

.....

Principle 3

.....

(3 marks)



5 (b) (ii) Name and describe **three** different sustainable fabrics.

Fabric 1

Name

Describe.....

.....

Fabric 2

Name

Describe.....

.....

Fabric 3

Name

Describe.....

.....

(6 marks)

26

Turn over for the next question

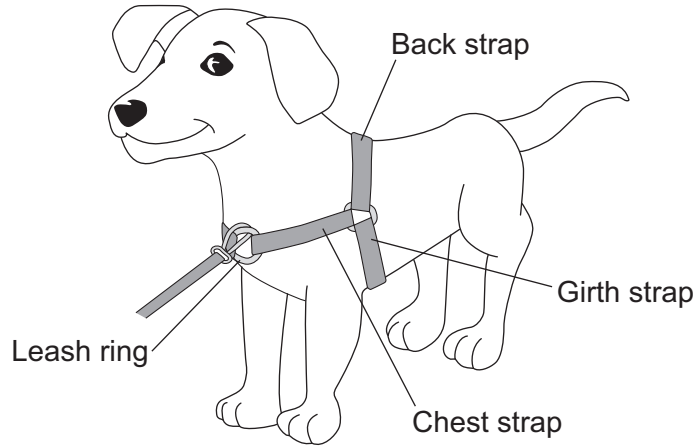
Turn over ▶



Question 6 is about product design and testing.

You should spend about 15 minutes on this question.

6 Study the design idea for a guide dog harness in the drawing below.



The design criteria for the harness are as follows:

- safe for dog to wear the harness
- comfortable for dog to walk in
- owner can be guided using the harness
- harness must make the dog visible.

6 (a) Identify and explain **three** different ideas to improve the harness. An example is given below.

Improvements to harness design	Explanation
<i>Add padding to back strap</i>	<i>To make the harness more comfortable for the dog to wear</i>

(6 marks)



6 (b) A prototype dog harness is made in a sample room.

List **two** different ways to test the prototype and give a reason for each test.

An example is given below.

Test: compare it to a similar existing product

Reason: to compare use of materials

Test 1

Reason.....

.....

Test 2

Reason.....

.....

(4 marks)

6 (c) The dog harness is made to fit a medium-sized dog.

Name **two** components that could be included in the harness design to make the harness adjustable in size.

Component 1

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Component 2

.....

(2 marks)

6 (d) The dog harness needs a product label to promote the brand name.

Give **one** method of making and applying the label to the harness.

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(2 marks)

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END OF QUESTIONS



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