

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

For Examiner's Use

General Certificate of Secondary Education
June 2007

**DESIGN AND TECHNOLOGY
(TEXTILES TECHNOLOGY) (SHORT COURSE)
Written Paper
Foundation Tier**

**3557/F
F**



Wednesday 13 June 2007 1.30 pm to 3.00 pm

For this paper you must have:

- a pen, a pencil, a ruler, an eraser, a pencil sharpener and coloured pencils
- an insert for use with Question 2
- an insert for use with Question 5.

Time allowed: 1 hour 30 minutes

Instructions

- Use blue or black ink or ball-point pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- All working must be shown.
- Do all rough work in this book. Cross through any work you do not want to be marked.
- Show the working of your calculations.

Information

- The maximum mark for this paper is 100.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

For Examiner's Use			
Question	Mark	Question	Mark
1		5	
2		6	
3		7	
4			
Total (Column 1) →			
Total (Column 2) →			
TOTAL			
Examiner's Initials			

Design brief

You are asked to reuse fabrics, textile products and components to design and make

either a fashion garment or accessory

or a decorative product for the home.

The product must

- use recycled fabrics
- include one added decorative technique
- include one or more components
- be suitable for sale as part of a designer's limited product range.

You are advised to answer the questions in this paper in the order in which they are written.

Answer **all** questions in the spaces provided.

Question 1 is about research to generate design ideas.

- 1 (a) Describe **one** way in which designers have used recycled textile materials in their designs.

.....

.....

.....

(2 marks)

- (b) Explain **one** problem of using recycled materials to make new textile products.

.....

.....

(1 mark)

- (c) Some new fashion products are designed to look 'old'.

Describe **two** ways in which new fashion products are made to look 'old'.

1

2

(2 marks)

Turn over for the next question

Question 2 is about designing your product.

- 2 (a) You have been asked to show your design ideas.

Use the information given in the design brief on page 2.

- (i) Use pencil to draw and label **two** different design ideas for your product.

Marks will be given for

- originality of ideas *(2 × 3 marks)*
- quality of notes and sketches. *(2 × 2 marks)*

Design Idea A

(5 marks)

Design Idea B

(5 marks)

(ii) Choose **one** of your design ideas for development.

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

Design Idea A ☐

Design Idea B ☐

Give **one** reason why your chosen design idea will sell well.

.....

.....

.....

(2 marks)

Question 2 continues on the next page

Turn over ►

- (b) Use sketches, labelling and notes to present a final design for your product.

You have this page and the next to present your design.

You must show a front **and** a back view.

If you have chosen a fashion garment you may use the body outline shapes on the insert sheet to help you.

Marks will be given for

- use of recycled fabrics, textile products or components (6 marks)
- originality and quality of the design including the decoration (6 marks)
- use of colour (3 marks)
- presentation of the final idea. (3 marks)

Question 3 is about the decorative techniques used on your product.

- 3 (a) (i) Name the decorative technique you have chosen.

.....
(1 mark)

- (ii) Explain why you think it is suitable.

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

- (b) (i) Describe a component you have used.

.....
.....
(2 marks)

- (ii) Explain why you think it is suitable.

.....
.....
.....
(2 marks)

Question 4 is about recycling and textiles.

4 Using recycled materials can help protect the environment.

(a) Explain each statement in the table below.

Pesticides used on cotton plants damage the environment.	
Polyester fabrics are a problem if thrown away in landfill sites.	
Buying components overseas causes environmental damage.	

(3 marks)

(b) Many textile products are packaged before going to the shops.

(i) Give **two** reasons why products are packaged.

1

2 (2 marks)

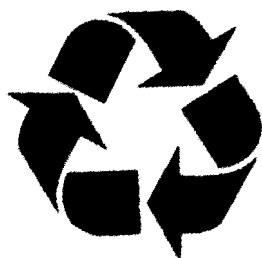
(ii) Give **two** reasons why some packaging is **not** environmentally friendly.

1

2 (2 marks)

(iii) The symbol shown below is often found on packaging.

Explain what this symbol means.



.....

..... (2 marks)

Question 5 is about fabric manufacture.

5 Study the photograph of the printed fabric shown on the insert sheet.

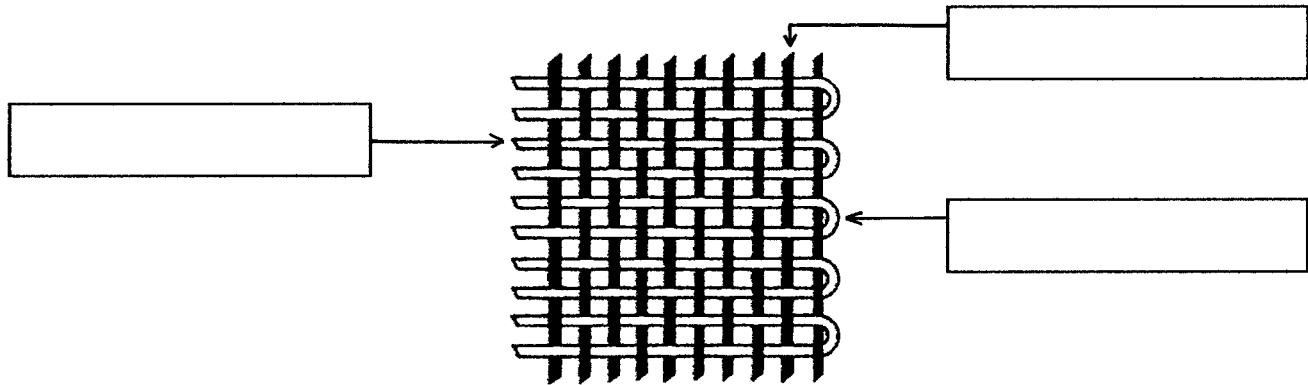
(a) The fabric has been woven.

Label **each** of the following correctly in the boxes shown below.

warp

weft

selvedge



(3 marks)

(b) The design has been printed on to the fabric.

(i) Explain **two** ways a fabric designer uses Computer Aided Design (CAD).

1

.....

2

.....

(4 marks)

(ii) Explain **two** ways a fabric manufacturer uses Computer Aided Manufacture (CAM).

1

.....

2

.....

(4 marks)

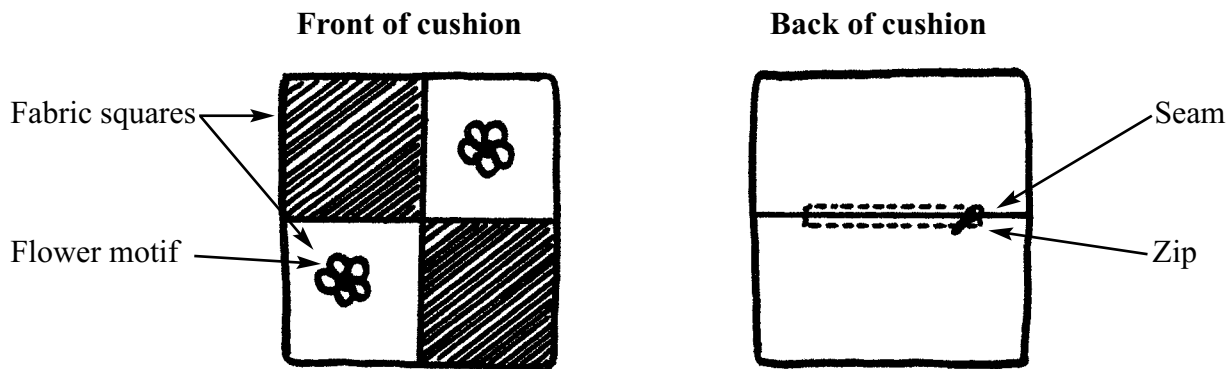
(iii) Give **one** quality control check that will be needed when printing this fabric.

.....

(1 mark)

Question 6 is about industrial production systems.

6 Look at the drawings of the cushion shown below.



(a) These are stages that will be needed in order to manufacture this cushion.

join front and back together	sew in zip	join coloured squares together
attach flower motifs	sew seam at back of cushion	

(i) Complete the chart below to show the order in which the cushion can be put together using the stages in the box above.

The first one has been done for you.

(5 marks)

(ii) Give **one** quality control check that will be needed at each stage.

The first one has been done for you.

(5 marks)

Stage of manufacture	Quality control check
Cut out fabric pieces	Make sure all pieces are cut straight

Question 6 continues on the next page

Turn over ►

(b) Some parts of the cushion will be made as a *sub-assembly*.

(i) What is meant by a sub-assembly?

.....
(1 mark)

(ii) Identify **one** part of the cushion which could be made on a sub-assembly line.

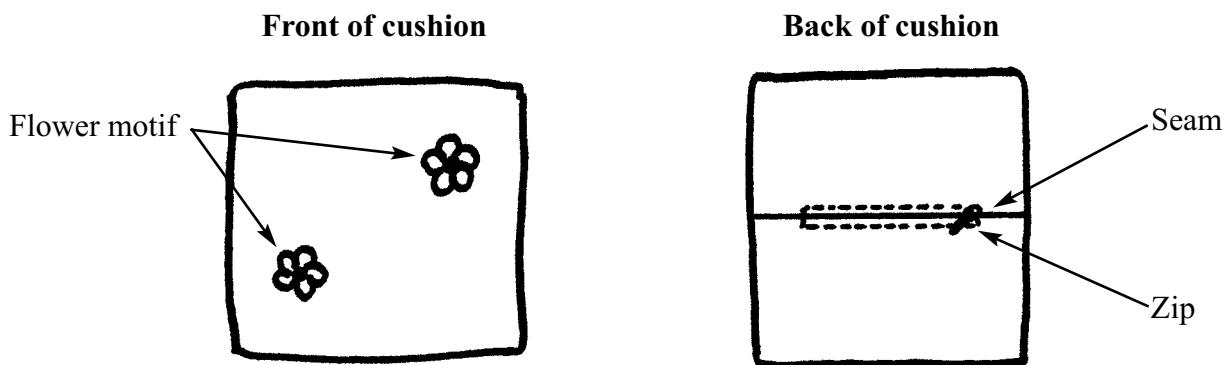
.....
(1 mark)

(c) When cutting out fabric for the cushions, many layers will be cut at once using a bandsaw / bandknife.

Give **two** ways manufacturers can make it safer for the workers using the bandsaw / bandknife.

1
2
(2 marks)

(d) The design of the cushion has been changed. The new design is shown below.



Give **two** ways in which the new cushion will be cheaper to manufacture.

1
2
(2 marks)

- (e) Each cushion needs a 50 cm length of fabric to make it.

Fill in the chart below to show the materials needed to make **10** cushions.

Fabric / component	Amount needed
Fabric	
Zips	
Flower motifs	

(3 marks)

- (f) A health and safety officer found some problems in a factory.

Explain the dangers for workers of **each** of the problems below.

- (i) rubbish piled up near factory exits

.....

.....

(2 marks)

- (ii) a cracked electric plug and fraying flex on a sewing machine

.....

.....

(2 marks)

- (iii) untrained operators using fork lift trucks in the warehouse

.....

.....

(2 marks)

Turn over for the next question

Question 7 is about fabric used for a cushion.

7 (a) The fabric used is made from 100% cotton.

(i) Give **two** detailed reasons why this is a suitable fabric for a cushion.

1

.....

2

.....

(4 marks)

(ii) Name **one** fabric finish which could make the cotton fabric better for a cushion.

.....

(1 mark)

(iii) Explain **one** advantage of this fabric finish.

.....

.....

(2 marks)

(b) The symbols shown below are on a label attached to a cushion.

Explain the use of **each** symbol on this cushion.

<p>(i)</p> 	<p>(2 marks)</p>
--	------------------

<p>(ii)</p> 	<p>(2 marks)</p>
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END OF QUESTIONS

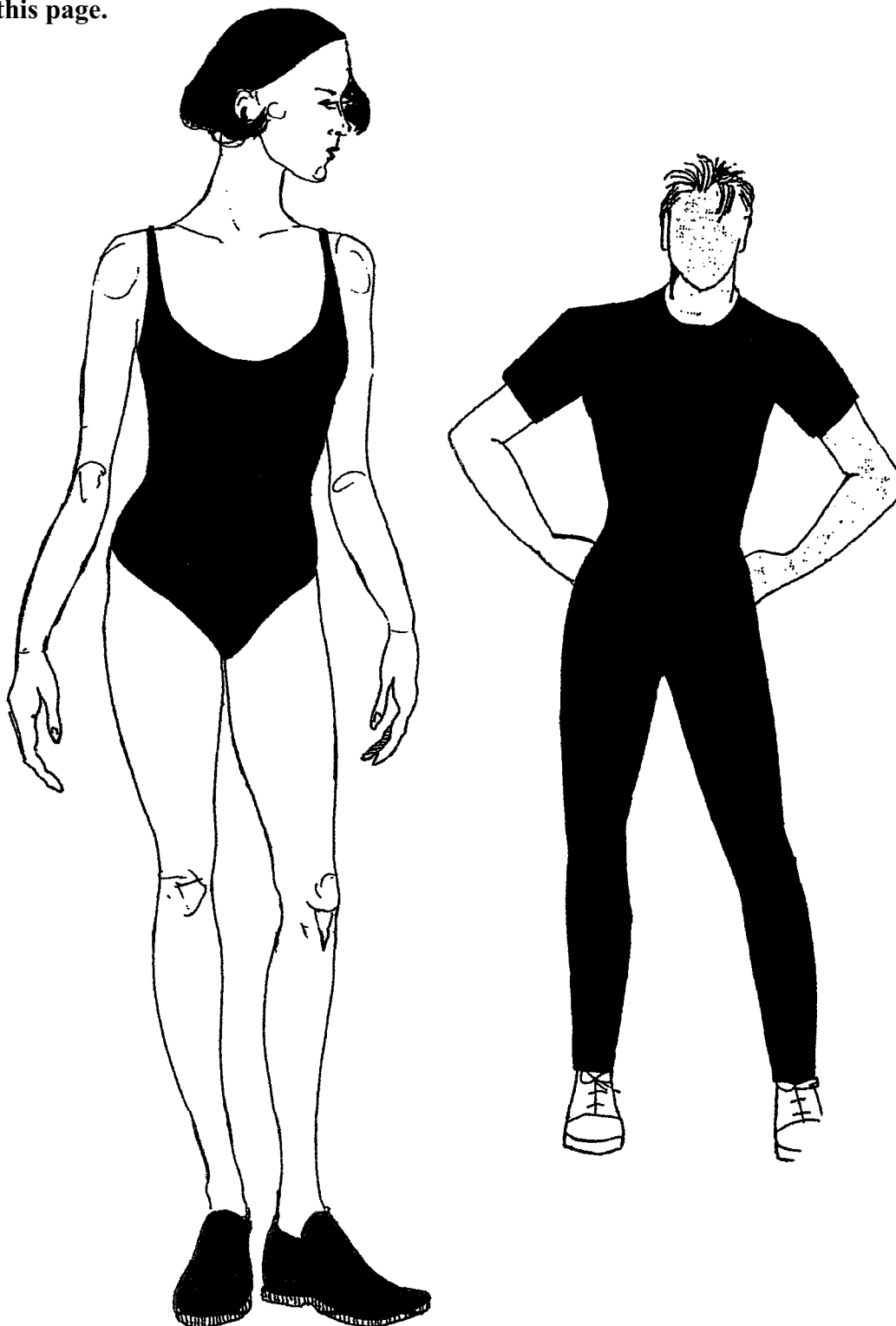
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**DESIGN AND TECHNOLOGY
(TEXTILES TECHNOLOGY)
Full and Short Courses**

This insert is provided for use with Question 2. It may be used as a guide if you choose to design a fashion garment.

Do not draw on this page.



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Insert to

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General Certificate of Secondary Education
June 2007
Foundation Tier Examination



**DESIGN AND TECHNOLOGY
(TEXTILES TECHNOLOGY)
Full and Short Courses**

This insert is provided for use with Question 5.

Photograph of printed fabric.

Photograph of printed fabric showing pink leaf pattern
is not reproduced here due to third-party copyright constraints.

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