

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

For Examiner's Use

General Certificate of Secondary Education
June 2006

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

**3547/F
F**



Wednesday 14 June 2006 1.30 pm to 3.30 pm

<p>For this paper you must have:</p> <ul style="list-style-type: none"> • a pen, pencil, ruler, eraser, pencil sharpener and coloured pencils • an insert for use with question 5.

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			

Time allowed: 2 hours

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 125.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

There are no questions printed on this page

Design brief

A specialist bag store sells many different types of bags.

You have been asked to design and make a bag to be sold in the store.

The bag must

- be based on the theme of 'Pop Art'
- have an appliqué decoration
- include a method of carrying or hanging the bag
- be suitable for industrial production.

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

Turn over for the first question

Turn over ►

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

Question 1 is about research.

- 1 (a) A designer needs to carry out research before starting to design a new bag.

Complete the table below. An example has been done for you.

Things a designer needs to know	Reason 1	Reason 2
<i>What time of year the bag will be sold.</i>	<i>A beach style is suitable for summer.</i>	<i>Fabrics used for a winter bag need to be water resistant.</i>
1
.....
.....
2
.....
.....

(6 marks)

- (b) Designers must think about the manufacture of the bag.

- (i) Explain **two** ways that a design could affect the health and safety of workers when they are making a bag.

- 1
-
- 2
-

(4 marks)

(ii) The bag must also be environmentally friendly.

Explain **two** ways that a bag design could affect the environment.

1

.....

2

.....

(4 marks)

Turn over for the next question

14

Turn over ►

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 3.

Use pencil to draw and label **two** different design ideas for your product.

Marks will be given for:

- quality of two different design ideas *(2 × 3 marks)*
- quality of notes and sketches. *(2 × 2 marks)*

Design Idea A

What could this bag be used for?

.....
(5 marks)

Design Idea B

What could this bag be used for?

.....
(5 marks)

(b) 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

(i) Who is the target market for this bag?

.....
(1 mark)

(ii) Explain why the target market would buy this bag.

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

Question 2 continues on the next page

Turn over ►

(c) Use sketches, labelling and notes to present a final design for your bag.

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

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

Marks will be given for:

- use of the Pop Art theme; *(4 marks)*
- originality and quality of the design including the appliqué and method of carrying or hanging the bag; *(8 marks)*
- use of colour; *(3 marks)*
- use of fabrics and components; *(4 marks)*
- presentation of the final idea. *(3 marks)* *(22 marks)*

Question 3 is about fabrics and components for your bag.

3 (a) List **three** qualities that will be needed in the main fabric for your bag.

Explain why each is important.

Quality 1 is

It is important because

Quality 2 is

It is important because

Quality 3 is

It is important because

(6 marks)

(b) A manufacturer may use an interfacing like ‘Bondaweb’ when making the appliqué.

(i) Give **two** reasons why this may be used.

1

2

(2 marks)

(ii) Using interfacing will make the bag more expensive to make.

Give **one** reason why the manufacturer thinks it is worth the extra cost.

.....

(1 mark)

Question 4 is about developing your bag.

4 You will need to develop parts of your bag.

(a) Use notes and diagrams to show **two** different methods of hanging or carrying the bag.
You will need to show how they are attached to the bag.

Method 1

.....

.....

.....

.....

.....

.....

.....

.....

(3 marks)

Method 2

.....

.....

.....

.....

.....

.....

.....

.....

(3 marks)

(b) Which method will be best for **your bag**?

Explain why.

.....

.....

.....

(2 marks)

Question 4 continues on the next page

Turn over ►

(c) You will need to work out the size of your bag.

Explain one way you can do this.

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

(3 marks)

(d) (i) A pattern template will be needed for cutting the fabric.

Explain **two** advantages of using a pattern template that has been used before.

1
.....
2
.....

(4 marks)

(ii) Explain **one** advantage of making a new pattern template.

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

(2 marks)

Question 5 is about industrial manufacturing specifications.

5 You must now look at the pictures of the shorts on the insert sheet.

A manufacturer is making the shorts shown on the insert sheet.

(a) A manufacturing specification will be needed.

Complete the specification by ticking the correct answers for each of the following.

(i) Which **two** components will be needed?

- buckle
- elastic
- popper fastenings
- sequins
- zips

(2 marks)

(ii) Each pair of shorts needs 1 metre of fabric.

100 pairs will need

- 100 metres.
- 500 metres.
- 1000 metres.

(1 mark)

(iii) The thread for the seams will need to be

- an embroidery thread.
- a matching colour.
- a contrasting colour.

(1 mark)

Question 5 continues on the next page

Turn over ►

- (b) The shorts fabric is made from 100% cotton.

Explain how **one** special fabric finish could make the shorts easier to care for.

One suitable finish is

It would be useful because

.....

.....

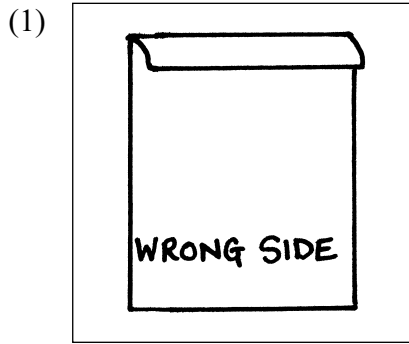
(3 marks)

- (c) There are different methods of making pockets.

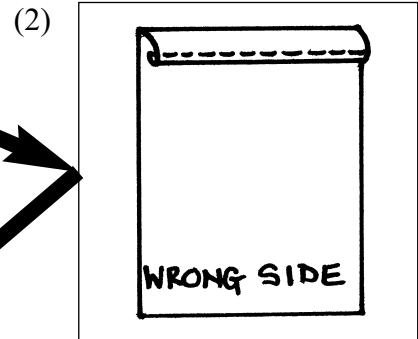
This is one method.

Match the instructions given below to the drawings opposite. Write the instruction letter (A to E) in the space under the diagram. Each letter should be used once.

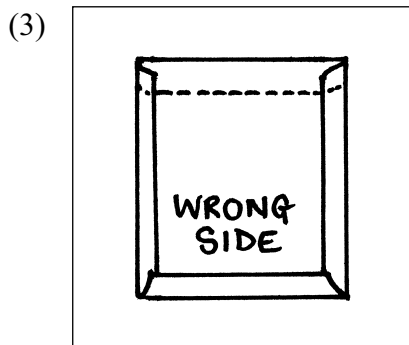
A	Place the pocket on the shorts in marked position.
B	Fold the top hem under and stitch down.
C	Make a turning at the top of the pocket.
D	Fold the turnings under on the other three sides of the pocket.
E	Stitch pocket in place on all three edges.



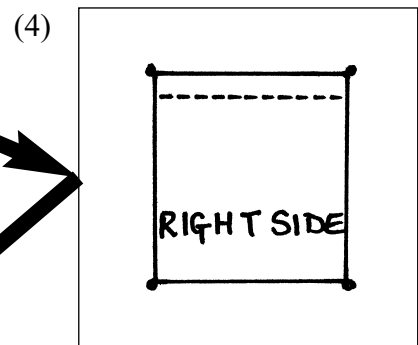
Instruction letter



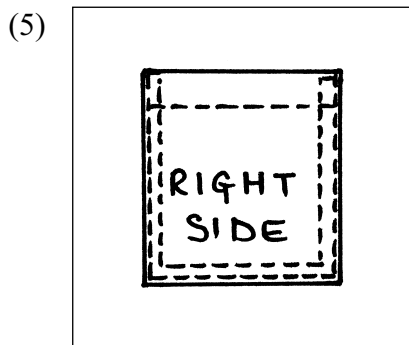
Instruction letter



Instruction letter



Instruction letter



Instruction letter

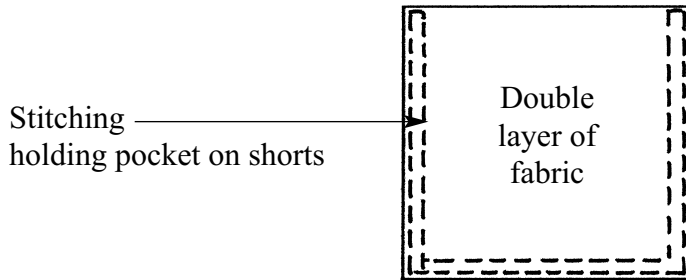
(5 marks)

Question 5 continues on the next page

Turn over ►

(d) There is a pocket on the back of the shorts.

A diagram is shown below.



(i) Explain why a double layer of fabric has been used for the pocket.

.....

 (2 marks)

(ii) Give **two** reasons why two rows of stitching are used to sew the pocket to the shorts.

1
 2
 (2 marks)

(e) Have another look at the pockets on the shorts.

Give **two** ways of making the pockets cheaper to manufacture.


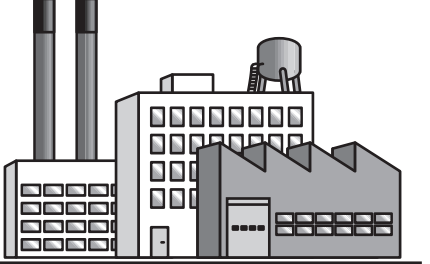
1

 2

 (4 marks)

Question 6 is about industrial product systems.

6 Look at the way these two factories organize the making of the shorts.

<p style="text-align: center;">Factory A</p>  <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Each worker in the team makes a complete pair of shorts.</p> </div>	<p style="text-align: center;">Factory B</p>  <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Each worker in the team does a different job on the shorts. For example, sews the pockets on.</p> </div>
<p>(a)(i) Give two <i>advantages</i> of the Factory A system.</p> <p>1</p> <p>.....</p> <p>2</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>	<p>(ii) Give two <i>advantages</i> of the Factory B system.</p> <p>1</p> <p>.....</p> <p>2</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>
<p>(b)(i) Give two <i>disadvantages</i> of the Factory A system.</p> <p>1</p> <p>.....</p> <p>2</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>	<p>(ii) Give two <i>disadvantages</i> of the Factory B system.</p> <p>1</p> <p>.....</p> <p>2</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>

Question 6 continues on the next page

Turn over ►

(c) Computers can be used to help manufacturing.

(i) Give **two** advantages when using them to cut out fabric.

1

2

(2 marks)

(ii) Give **two** dangers for people working on the cutting out of fabric.

1

2

(2 marks)

(d) Give **two** different ways in which computers can be used to

(i) keep a check on components in stock,

1

2

(2 marks)

(ii) put colour and pattern on to fabric.

1

2

(2 marks)

(e) (i) The pockets for the shorts will be made separately on a sub-assembly line.

Give **one** reason for doing this.

.....

.....

(1 mark)

(ii) The quality control checker has found two faults on the pockets.

Fill in the table below for the quality control team.

Fault	What problem will it cause?	How can it be put right?
1 The pockets are larger than the specification says they should be.
2 The pockets are sewn on crooked and not in the right place.

(6 marks)

(iii) Give **two** things that quality control will need to look for when checking the poppers on the shorts.

- 1
- 2

(2 marks)

Turn over for the next question

Turn over ►

Question 7 is about textile products and the consumer.

7 (a) A textile product has an information label.

Give **three** things that might be on this label.

- 1
- 2
- 3

(3 marks)

(b) Bar codes like the one shown below are often put on textile products.
Give **two** advantages of these barcodes for the consumer/retailer.



- 1
- 2

(2 marks)

END OF QUESTIONS

5

**DESIGN AND TECHNOLOGY
(TEXTILES TECHNOLOGY)
Full and Short Courses
Foundation and Higher Tiers**

This insert is provided for use with Question 5.

Front view of shorts



Back view of shorts



This insert page should **not** be sent to the examiner.