

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
Higher Tier**

**3547/H
H**



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		4	
2		5	
3		6	
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
- have different sections to separate things in 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 to generate design ideas.

1 (a) The store has been selling a range of bags for a long time.

(i) How might information about recent sales figures be useful when planning new products?

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(3 marks)

(ii) Explain **three** other things a designer will need to know before starting to design a new bag.

1
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2
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3
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(3 marks)

(b) Designers have to think about the effects of the products they design.

(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 a 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

Who is the target market for this bag?

Explain how the design idea you have chosen will appeal to your target market.

.....

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.....

(3 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, different sections and method of carrying or hanging the bag; *(10 marks)*
- use of colour; *(3 marks)*
- use of fabrics and components; *(4 marks)*
- presentation of the final idea. *(3 marks)* *(24 marks)*

Question 3 is about fabrics and components.

3 (a) Describe the qualities you need in the main fabrics for your product.

Explain why you think these qualities are important.

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(6 marks)

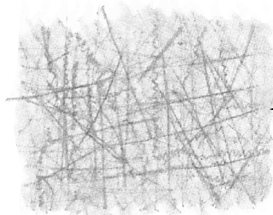
(b) A manufacturer may use an interfacing like 'Bondaweb' when making the appliqué.

(i) Explain why this may be used.

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

(3 marks)

(ii)



The interfacing is a non-woven fabric

Give **two** reasons why a *non-woven fabric* is used.

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

(2 marks)

(iii) Using the interfacing will add to the costs of manufacture.

Explain why a manufacturer might consider these costs worthwhile.

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(4 marks)

Turn over for the next question

15

Turn over ►

Question 4 is about developing your bag.

4 You have been asked to include a method of carrying or hanging the bag.

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

(a) (i)

Method 1

.....

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.....

(3 marks)

(ii) Evaluate the suitability of this method for your bag.

.....

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(2 marks)

(b) (i)

Method 2

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(3 marks)

(ii) Evaluate the suitability of this method for your bag.

.....

.....

.....

(2 marks)

Question 5 is about industrial manufacture.

5 A manufacturer is making the shorts shown on the insert sheet as part of a new range of casual wear.

(a) Look carefully at the shorts shown on the insert sheet.

Explain how **two** different features make the shorts suitable for casual wear.

(i) Feature 1 is

.....

.....

(2 marks)

(ii) Feature 2 is

.....

.....

(2 marks)

Question 5 continues on the next page

Turn over ►

(b) Complete the manufacturing specification below for **one** pair of shorts.

<p>Fabric: 0.80 m × 150 cm medium weight woven cotton</p>	<p>Diagram to show how outside leg seam will be constructed</p>
<p>Description of three components needed: 1 2 3 <i>(6 marks)</i></p>	<p>Diagram to show how outside leg seam will be constructed</p> <p style="text-align: right;"><i>(4 marks)</i></p>
<p>Diagram to show how hem of shorts leg will be made</p> <p style="text-align: right;"><i>(4 marks)</i></p>	<p>Explain three Quality Control checks for front pockets: 1 2 3 <i>(6 marks)</i></p>

(c) (i) Suggest **one** finish that could be used on the shorts fabric.

.....
(1 mark)

(ii) Explain why you think it would be useful.

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

(d) Use notes and diagrams to explain how to make the pocket on the back of the shorts.

(6 marks)

Turn over ►

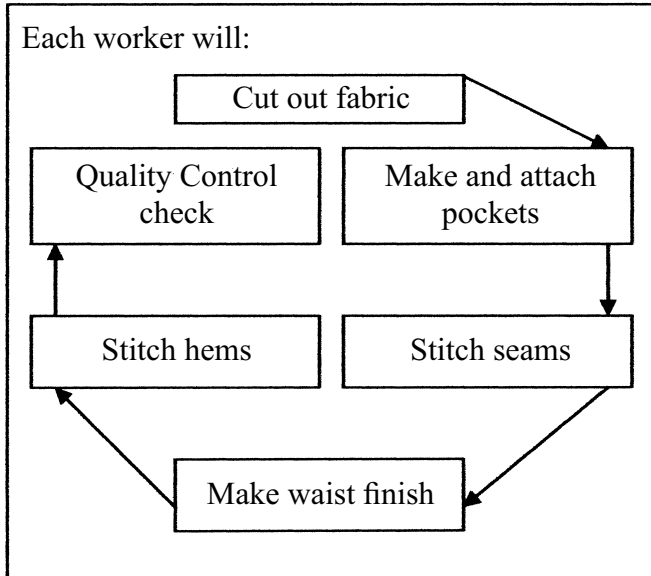
Question 6 is about industrial production systems.

6 An efficient manufacturing system for the shorts in Question 5 is important.

Study the two manufacturing systems shown below.

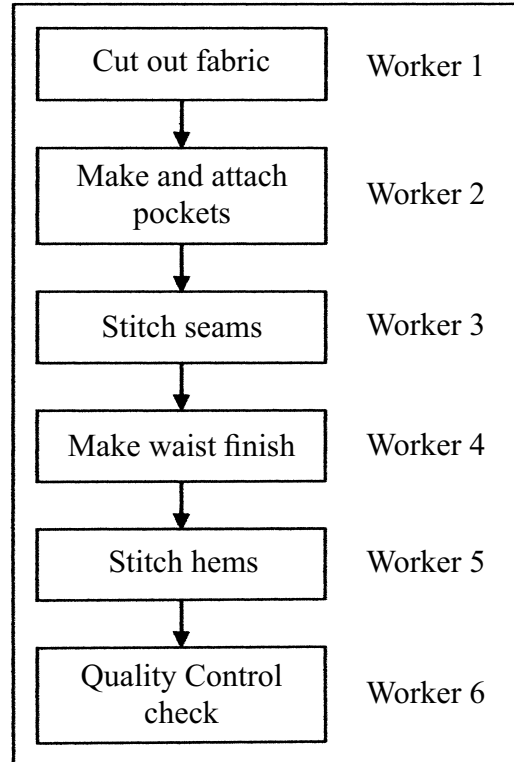
System A

Each worker in a team makes a complete pair of shorts.



System B

Each worker does a different job on the shorts.



(a) Which system do you think is the more efficient for a manufacturer?

Give reasons for your answer.

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(6 marks)

(b) Give specific ways in which computerized manufacture can

(i) reduce labour costs in **three** different ways;

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

(6 marks)

(ii) make the workplace safer in **two** different ways.

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

(4 marks)

END OF QUESTIONS

There are no questions printed on this page

There are no questions printed on this page

There are no questions printed on this page

**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.