



Friday 23 May 2014 – Afternoon

**GCSE DESIGN AND TECHNOLOGY
Textiles Technology**

A575/01 Sustainability and Technical Aspects of Designing and Making

Candidates answer on the Question Paper.
OCR supplied materials:
None
Other materials required:
None

Duration: 1 hour 30 minutes



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Answer **all** the questions in Section A **and** Section B.
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **80**.
- Your quality of written communication is assessed in the questions marked with an asterisk (*).
- This document consists of **16** pages. Any blank pages are indicated.

SECTION A

Answer **all** questions.

You are advised to spend about 40 minutes on this section.

On questions 1–5 **circle** your answer.

- 1 Which of the following fibres is from a non-sustainable resource?
(a) Cotton
(b) Polyester
(c) Silk
(d) Hemp [1]
- 2 Waste materials that decompose easily within the environment are called:
(a) Biodegradable materials
(b) Non-toxic materials
(c) Smart materials
(d) Toxic materials [1]
- 3 Improving the design of a textile item refers to:
(a) Reducing
(b) Recycling
(c) Repairing
(d) Rethinking [1]
- 4 Dyes that can cause harm to people are called:
(a) Toxic products
(b) Bio products
(c) Safe products
(d) Waste products [1]
- 5 LCA stands for:
(a) Life cycle assessment
(b) Life cycle award
(c) Life cycle accreditation
(d) Life cycle aggregation [1]

6 The symbol shown below represents: [1]



7 State the term used to describe when a product is designed with consideration for the environment.
..... [1]

8 Which of the 6Rs describes mending a product?
..... [1]

9 Give the term used to describe the design of a product to fit the human form.
..... [1]

10 State what a Mobius loop symbol tells you about a product.
..... [1]

Decide whether the statements below are **True** or **False**.

Tick (✓) the box to show your answer.

	True	False	
11 Gortex is a manmade fabric	<input type="checkbox"/>	<input type="checkbox"/>	[1]
12 Good design improves quality of life	<input type="checkbox"/>	<input type="checkbox"/>	[1]
13 Non-renewable materials are environmentally friendly	<input type="checkbox"/>	<input type="checkbox"/>	[1]
14 COSHH regulations help to protect workers from hazardous substances	<input type="checkbox"/>	<input type="checkbox"/>	[1]
15 Photochromic dyes change colour in varying temperatures	<input type="checkbox"/>	<input type="checkbox"/>	[1]

16 Fig. 1 shows a wall hanging made from recycled silk saris.

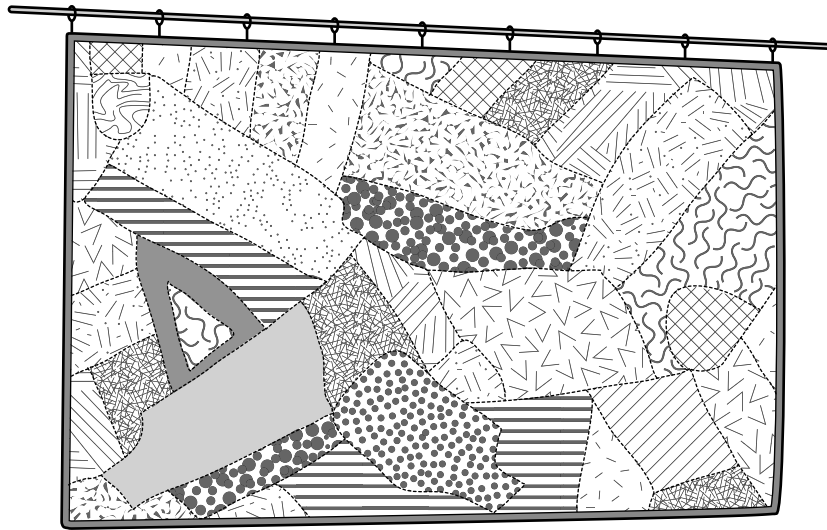


Fig. 1

(a) Two advantages of the wall hanging are that it is sustainable and biodegradable. Explain what is meant by these **two** terms:

Sustainable

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

Biodegradable

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

[4]

(b) Give **four** other advantages of using recycled materials for the wall hanging.

1

2

3

4

[4]

(c) In the space below sketch a design for a cushion. The cushion must:

- Be made from recycled garments;
- Include decorative techniques.

Annotate your sketch to show **all** design and construction details.

[6]

7
SECTION B

Answer **all** questions.

You are advised to spend 50 minutes on this section.

17 Fig. 2 shows a shirt made from a woven cotton fabric.

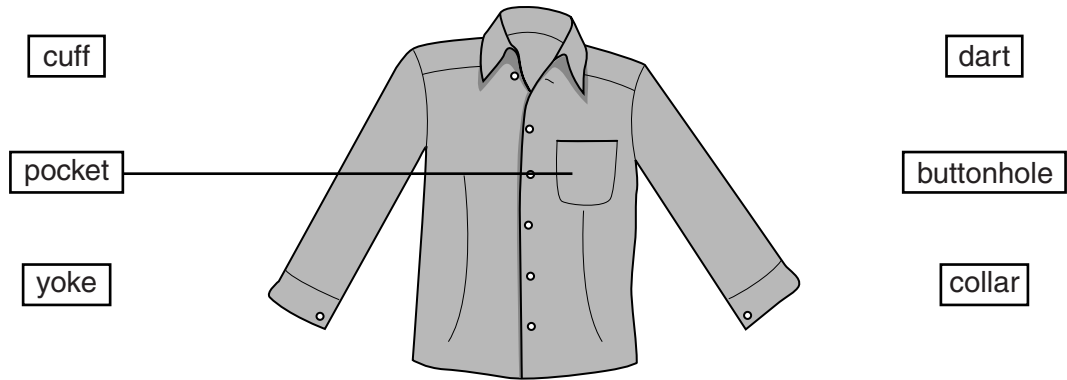


Fig. 2

(a) Label the **five** parts of the shirt shown in Fig. 2.
The first one has been done for you. [5]

(b) Give **two** performance characteristics of woven cotton fabric.

- 1
- 2 [2]

(c) (i) The shirt shown in Fig. 2 is joined together using an open seam.

In the space below sketch and label an open seam.

[2]

(ii) Give **two** different ways to neaten the edges on an open seam.

- 1
- 2 [2]

(d) (i) The shirt shown in Fig. 2 is to have a machine embroidered design on the pocket.

Give **two** advantages to the manufacturer of using CAD/CAM machine embroidery.

1

2

[2]

(ii) The manufacturer uses interfacing in the embroidering process.

Give **two** functions of the interfacing.

1

2

[2]




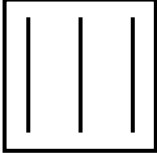
[Total: 15]

18 (a) The table below shows symbols found on household textile products.

State the meaning of the symbols shown in the table.

Give **one** different household textile product for each symbol.

The first one has been done for you.

Symbol	Meaning of symbol	Household textile product
	<i>Machine wash reduced – at 60</i>	Towels
		
		
		

[6]

(b) Health and safety in the workplace is important.

Give **three** items of protective clothing or equipment to be worn when working with manufacturing machinery.

1

2

3

[3]

(c) Risk assessment is a legal requirement for the workplace.

Explain the term risk assessment.

.....

.....

.....

..... [2]

(d) Fig. 3 shows a label attached to a textile product.

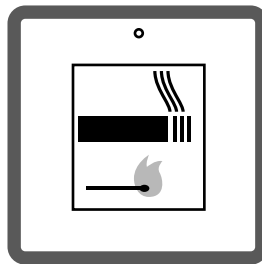


Fig. 3

Explain the meaning of the label and why it is important to the consumer.

.....

.....

.....

.....

.....

..... [4]

[Total: 15]

19 (a) Fig. 4 shows a children's coat with a screen printed design.



Fig. 4

Explain, using notes and diagrams, how to screen print a two colour design on to fabric.

[6]

(b) The coat is to have interactive textiles added.

Explain what is meant by interactive textiles.

.....

.....

.....

.....

.....

.....

..... [3]

ADDITIONAL ANSWER SPACE

If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.

This section of the page is a large, empty area for writing answers. It consists of a vertical solid line on the left side, which serves as a margin. To the right of this line, there are 25 horizontal dotted lines spaced evenly down the page, providing a guide for writing. The entire area is otherwise blank.

PLEASE DO NOT WRITE ON THIS PAGE



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