



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				
--------------------	--	--	--	--	-------------------	--	--	--	--

Centre number						Candidate number			
---------------	--	--	--	--	--	------------------	--	--	--

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

 [1]

12 Good design improves quality of life

 [1]

13 Non-renewable materials are environmentally friendly

 [1]

14 COSHH regulations help to protect workers from hazardous substances

 [1]

15 Photochromic dyes change colour in varying temperatures

 [1]

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

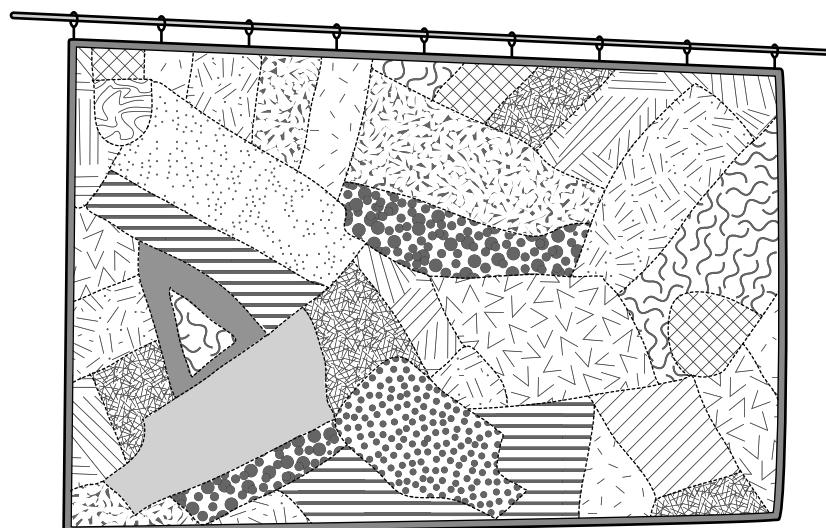


Fig. 1

(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]

(d)* Some textiles products are labelled with a Fairtrade logo.

Explain why consumers choose to buy Fairtrade products.

.. [6]

[Total: 35]

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.

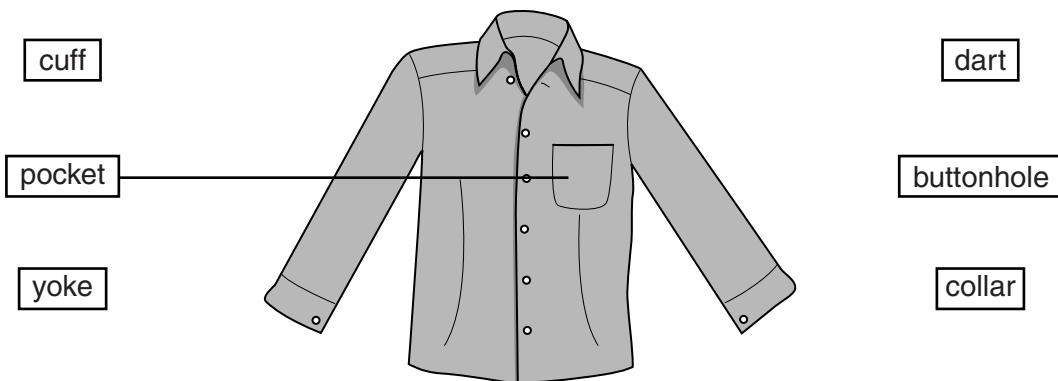


Fig. 2

(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 toneaten 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]

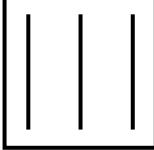
[Total: 15]

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
	Machine wash reduced – at 60	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]

10

(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.

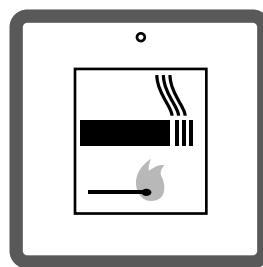


Fig. 3

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]

12

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

Explain what is meant by interactive textiles.

[3]

- [3]

13

(c)* Discuss the factors to consider when choosing fabrics and components for children's garments.

. [6]

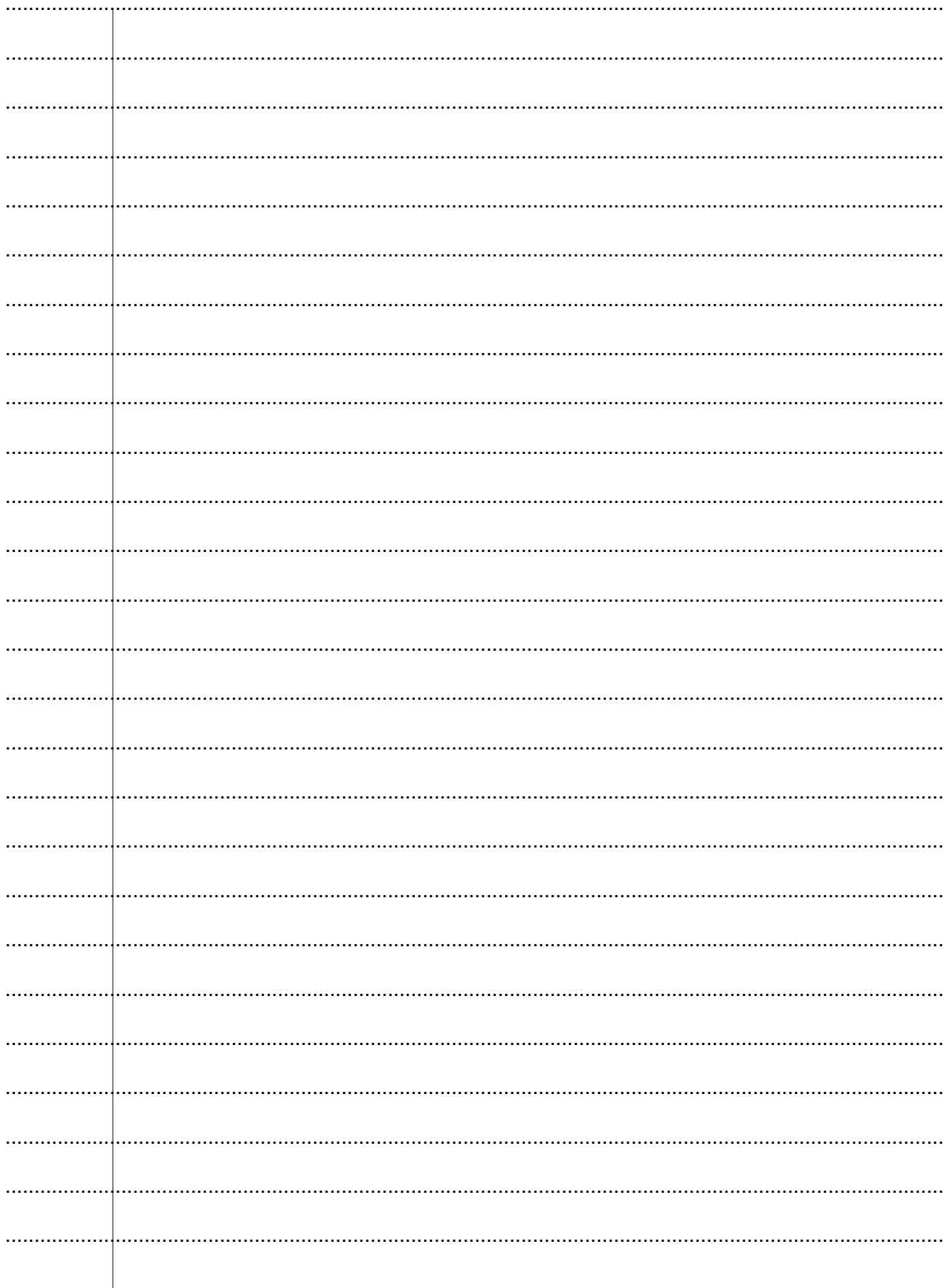
[Total: 15]

END OF QUESTION PAPER

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.

The page contains a vertical line on the left side and 20 horizontal dotted lines for writing. The lines are evenly spaced and extend across the width of the page.



This image shows a blank sheet of handwriting practice paper. It features a vertical red line on the left side, likely representing a margin. To the right of this margin are 22 horizontal grey lines arranged in a grid pattern, intended for practicing letter formation and alignment. The lines are evenly spaced and extend across the width of the page.

PLEASE DO NOT WRITE ON THIS PAGE



Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.