

Wednesday 22 May 2013 – Afternoon

GCSE DESIGN AND TECHNOLOGY Textiles Technology

A572/01 Sustainable Design

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

Duration: 1 hour



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.
- Answer **all** the questions in Section A **and** Section B.
- 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.
- 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 **60**.
- Your quality of written communication is assessed in the question marked with an asterisk (*).
- This document consists of **12** pages. Any blank pages are indicated.

SECTION A

Answer **all** questions.

You are advised to spend 15 minutes on this section.

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

- 1** A source of natural fibres is:
- (a) Oil
 - (b) Tyres
 - (c) Alpaca
 - (d) Plastic bottles **[1]**
- 2** Making a product outdated after a limited amount of time is called:
- (a) Expired warranty
 - (b) Technological obsolescence
 - (c) Safety obsolescence
 - (d) Planned obsolescence **[1]**
- 3** Assessing the potential dangers in a factory is officially termed:
- (a) Machinery assessment
 - (b) COSHH
 - (c) Risk assessment
 - (d) Health and safety assessment **[1]**
- 4** Chemicals that cause harm to people are called:
- (a) Toxic chemicals
 - (b) Unfit products
 - (c) Bio chemicals
 - (d) Waste products **[1]**

5 Thermochromic dyes are:

- (a) Insulating
- (b) Heat sensitive
- (c) Fire resistant
- (d) Waterproof

[1]

6 The symbol shown stands for:



..... [1]

7 Name the logo used to show a product is made from recycled materials

..... [1]

8 What does RFID stand for?

..... [1]

9 Name **one** fibre made from oil.

..... [1]

10 What are materials that decompose naturally called?

..... [1]

Decide whether each of the following statements is **true** or **false**.

Tick (✓) the box to show your answer.

	True	False	
11 Smart materials all contain microchip technology	<input type="checkbox"/>	<input type="checkbox"/>	[1]
12 Cold water dyes use less water	<input type="checkbox"/>	<input type="checkbox"/>	[1]
13 Shredded textiles are secondary recycling	<input type="checkbox"/>	<input type="checkbox"/>	[1]
14 Acetate is a natural fibre	<input type="checkbox"/>	<input type="checkbox"/>	[1]
15 Textile products could be made using can ring pulls	<input type="checkbox"/>	<input type="checkbox"/>	[1]

Total [15]
Turn over

SECTION B

Answer **all** questions.

You are advised to spend 45 minutes on this section.

16 Fig. 1 shows a pair of denim jeans with an embellished pocket.

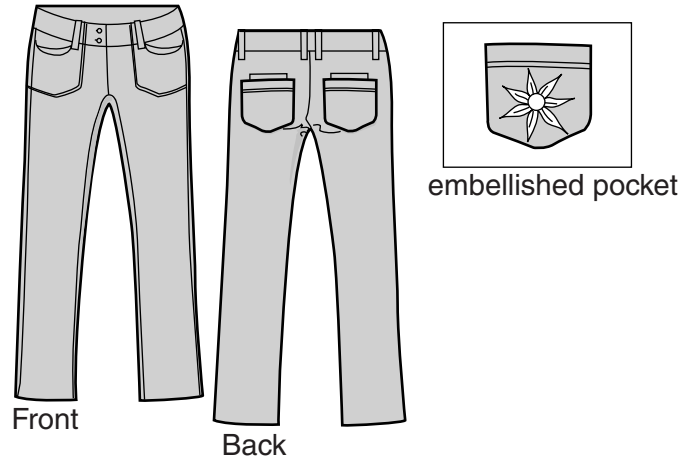


Fig. 1

(a) The denim is made from 100% cotton.

Give **three** environmentally friendly reasons for using 100% cotton.

- 1
 -
 - 2
 -
 - 3
 -
- [3]**

(b) The manufacturer for the denim jeans will only use natural dyes.

Give **two** sources of natural dyes.

- 1
 -
 - 2
 -
- [2]**

(c) Name **three** methods of producing hand embellished designs.

1

2

3

[3]

(d) The back pocket on the jeans has an embellished handmade design.

Identify **three** social advantages of manufacturing by hand.

1

.....

2

.....

3

.....

[3]

(e) Elastane fibres are to be added to the denim jeans to give them a better fit.

Explain the disadvantages to the environment of manufacturing the jeans with elastane fibres.

.....

.....

.....

.....

.....

..... [4]

Total [15]

17 Many bags are made from recycled textile items.

Fig. 2 shows a laptop case made from recycled seatbelts.

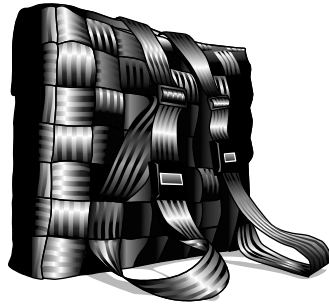


Fig. 2

(a) Name **two** household textile products that could be recycled to make a bag.

1

2 [2]

(b) New products should have 'sustainable design' as a specification point.

Explain how a designer could consider the following:

(i) The sustainable use of materials.

.....

.....

.....

.....

..... [3]

(ii) The carbon footprint of the product.

.....

.....

.....

.....

..... [3]

(iii) How a product could be recycled or disposed of.

.....
.....
.....
.....
..... [3]

(c) A bag is to be designed for use with young children.

Give **four** points a designer would need to consider when designing the bag.

1
.....
2
.....
3
.....
4
..... [4]

Total [15]

(b) A child's toy must have a safety symbol attached.

In the space below sketch and label **one** symbol used to show that a textile toy meets safety standards.

[2]

(c) Name the term used when a product is made in one country and sold in another.

..... [1]

(d) Computer technology is used worldwide within the textiles industry.

Explain **three** benefits to the environment of using computer technology.

1

.....

.....

2

.....

3

.....

.....

[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.

A large area of lined paper for writing answers. It features a vertical margin line on the left side and horizontal dotted lines for writing. The lines are evenly spaced and extend across the width of the page.

A blank sheet of lined paper. On the left side, there is a solid vertical line that serves as a margin. The rest of the page is filled with horizontal dashed lines, providing a guide for writing. The lines are evenly spaced and extend across the width of the page.

A large area of the page is reserved for writing, featuring a vertical solid line on the left side and horizontal dotted lines extending across the page.



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