

Wednesday 1 February 2012 – Morning

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 biodegradable material will:
- (a) Grow naturally in the environment
 - (b) Not grow in the environment
 - (c) Naturally degrade in the environment
 - (d) Not naturally degrade in the environment [1]
- 2** Polartec fleece can be made from:
- (a) Plastic bottles
 - (b) Tin cans
 - (c) Car tyres
 - (d) Cardboard [1]
- 3** Tertiary recycling refers to:
- (a) Landfill
 - (b) Chemical
 - (c) Charity shops
 - (d) Third world countries [1]
- 4** Smart materials:
- (a) Are natural materials
 - (b) Are materials that look good
 - (c) Can respond to environmental changes
 - (d) Do not involve technology [1]

5 Studying existing products is:

- (a) Product manufacture
- (b) Product making
- (c) Study analysis
- (d) Product analysis

[1]

6 The symbol shown stands for:



..... [1]

7 Linen fibres are made from sources. [1]

8 Name the label used to advertise environmentally friendly products.

..... [1]

9 Name **one** renewable natural energy resource.

..... [1]

10 Name the term that refers to the study of people and measurements.

..... [1]

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

Tick (✓) the box to show your answer.

11 E-cloths contain chemicals

	True	False	
	<input type="checkbox"/>	<input type="checkbox"/>	[1]

12 Flax is a natural fibre

	<input type="checkbox"/>	<input type="checkbox"/>	[1]
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13 Patchwork is a method of recycling

	<input type="checkbox"/>	<input type="checkbox"/>	[1]
--	--------------------------	--------------------------	-----

14 Toxic chemicals are environmentally friendly

	<input type="checkbox"/>	<input type="checkbox"/>	[1]
--	--------------------------	--------------------------	-----

15 Wind power is the fastest growing energy resource used in the world

	<input type="checkbox"/>	<input type="checkbox"/>	[1]
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Total [15]

Turn over

Section B

Answer **all** questions.

You are advised to spend 45 minutes on this section.

16 Fig. 1 shows a pile of bean bags.

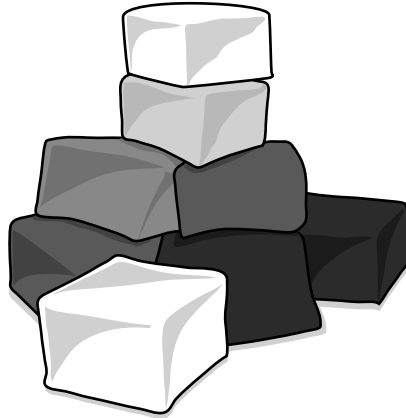


Fig. 1

(a) The bean bags are made from 100% organic cotton.

Give **four** advantages to the environment of using organic cotton.

- 1
 -
 -
 - 2
 -
 -
 - 3
 -
 -
 - 4
 -
 -
- [4]**

(b) The bean bags will require a care label to be attached.

On the label below using notes and/or sketches show **three** pieces of information that would be found on the label.

100% Organic Cotton

[3]

(c) Bean bags are difficult to flat pack.

State **three** ways that flat packing products reduces damage to the environment.

- 1
 - 2
 - 3
- [3]

(d) At the end of its life span the bean bag is to be re-used.

Give **five** different ways of reusing the bean bag.

- 1
 - 2
 - 3
 - 4
 - 5
- [5]

Total [15]
Turn over

17 Fig. 2 shows a utility belt.

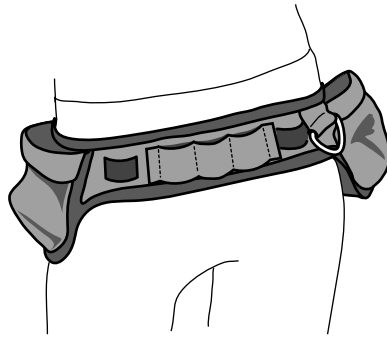


Fig. 2

(a) Describe what is meant by the term product analysis with reference to the utility belt shown in Fig. 2.

.....
.....
..... [2]

(b) The utility belt is to be disassembled.

Give **three** reasons for disassembling a textile product.

1

.....

.....

.....

2

.....

.....

.....

3

.....

.....

..... [3]

(c) Name **two** natural fibres that the utility belt could be made from.

For each fibre state **one** different performance characteristic that makes it a suitable choice.

Fibre

Performance characteristic

.....

18 Fig. 3 shows a machine embroidered cushion manufactured in the UK.



Fig. 3

(a) The cushion is manufactured in a factory that uses non-renewable energy sources.

Describe **two** disadvantages to society of using non-renewable energy sources.

1

.....

.....

.....

2

.....

.....

..... [4]

Fig. 4 shows a hand embroidered cushion manufactured abroad.



Fig. 4

(b) State **four** social advantages of manufacturing a hand embroidered cushion abroad.

- 1
 - 2
 - 3
 - 4
- [4]

(c) Health and safety is an important issue in the workplace.

Explain **two** ways that health and safety regulations protect workers in the UK.

- 1
 - 2
- [4]

(d) Cushions must comply with safety regulations.

Give **three** examples of safety checks that could be carried out on cushions.

1

.....

2

.....

3

..... [3]

Total [15]

11
Additional Page

Dotted lines for writing.

