



**GENERAL CERTIFICATE OF SECONDARY EDUCATION
DESIGN AND TECHNOLOGY**

A572

Textiles Technology
Sustainable Design

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:
None

**Wednesday 3 February 2010
Morning**

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 clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions in Section A **and** Section B.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

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 Which of the following is **not** a renewable resource?
(a) Wood
(b) Wool
(c) Paper
(d) Metal [1]
- 2 Which of the following is **not** a type of fibre generally found in Eco friendly fabrics?
(a) Hemp
(b) Flax
(c) Polyester
(d) Cotton [1]
- 3 Smart materials are often found in:
(a) Hats
(b) Scarves
(c) Medical Textiles
(d) Wetsuits [1]
- 4 Taking a product apart to help analyse the various parts and how it fits together is called:
(a) Product assembly
(b) Product disassembly
(c) Commercial analysis
(d) Product analysis [1]
- 5 Adding design features to deliberately make a product outdated after a certain time is called:
(a) Planned obsolescence
(b) Safety obsolescence
(c) Expired warranty
(d) Technological obsolescence [1]

6 The symbol shown stands for:



..... [1]

7 State what is meant by a product being 'recycled'.

..... [1]

8 What is meant by the 'term' Product Analysis?

..... [1]

9 What is the 'term' that refers to the impact of a company's transportation of goods and materials?

..... [1]

10 What are materials that decompose easily within the environment called?

..... [1]

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

Tick (✓) the box to show your answer.

True **False**

11 Textiles dyes can be made from natural plants. [1]

12 Wool is biodegradable. [1]

13 Recycling started before the 20th Century. [1]

14 Polartec fleece is made from natural fibres. [1]

15 Polyester, nylon and acrylic are all made from renewable energy resources. [1]

Total [15]

Section B

Answer **all** questions.

You are advised to spend 45 minutes on this section.

16 Fig. 1 shows a woollen jumper.



Fig. 1

(a) Explain, with reference to the woollen jumper in Fig. 1 what is meant by the following **three** terms.

(i) Sustainable

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

(ii) Recyclable

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

(iii) Biodegradable

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

(b) The woollen jumper has been dyed.

Describe **two** potential risks to the environment when dyeing fibres.

Risk 1
.....
..... [2]

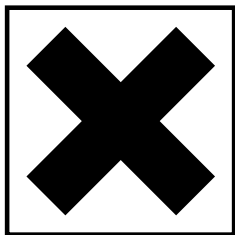
Risk 2
.....
..... [2]

(c) Fig. 2 shows two symbols found on a packet of dye.

Name the **two** symbols.



..... [1]



..... [1]

Fig. 2

Total [15]

Turn over

17 Fig. 3 shows a belt made from re-used packaging.

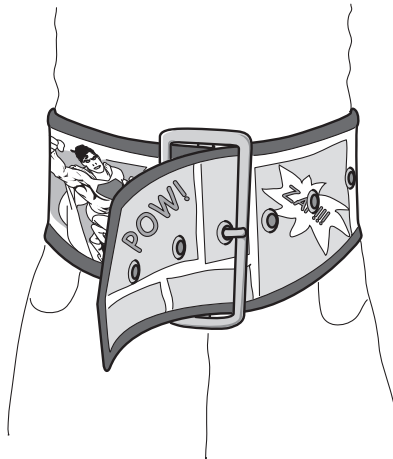


Fig. 3

(a) (i) Name **one** textile or product that could be recycled to make a belt.

..... [1]

(ii) Give **two** advantages of re-using these textile materials or products for the belt.

Advantage 1 [1]

Advantage 2 [1]

(b) Describe how a belt could address any **two** of the 6Rs other than re-use.

1 [2]

2 [2]

(c) A belt can be both functional and aesthetic.

(i) State **four** functional features of the belt shown in Fig. 3.

Feature 1 [1]

Feature 2 [1]

Feature 3 [1]

Feature 4 [1]

(ii) State **four** aesthetic features of the belt shown in Fig. 3.

Feature 1 [1]

Feature 2 [1]

Feature 3 [1]

Feature 4 [1]

Total [15]

18 (a) (i) Identify a textile product that could be made using a non-renewable energy source.
..... [1]

(ii) Explain what is meant by a non-renewable energy source.
.....
.....
.....
.....
..... [3]

(iii) Name an alternative Eco friendly energy source.
..... [1]

(b) A textile product is to be re-designed, manufactured and sold as Eco friendly.

List **four** points a designer would need to consider to ensure that the product is Eco friendly.

1 [1]

2 [1]

3 [1]

4 [1]

(c*) Environmental considerations are an important part of a manufacturing system.

Describe **three** ways of improving manufacturing processes to protect and preserve the environment.

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..... **[6]**

Total [15]

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