



**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

**Tuesday 22 June 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. Additional paper may be used if necessary but you must clearly show your Candidate Number, Centre Number and question number(s).

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 a **non-renewable** resource?
(a) Gas
(b) Wool
(c) Paper
(d) Cotton [1]
- 2 Which of the following is **not** primary recycling?
(a) Giving items to a charity shop
(b) Re-making the product into something else
(c) Handing unwanted items to friends
(d) Leaving a product to biodegrade [1]
- 3 Assessing the potential dangers in a factory is officially termed:
(a) Danger assessment
(b) Health and safety assessment
(c) Risk assessment
(d) Machinery assessment [1]
- 4 Waste materials that decompose easily within the environment are called:
(a) Non-biodegradable materials
(b) Biodegradable materials
(c) Toxic materials
(d) Non-toxic materials [1]
- 5 Chemicals that cause harm to people and animals are called:
(a) Chemical products
(b) Toxic products
(c) Bio products
(d) Waste products [1]

6 The symbol shown stands for:



..... [1]

7 When a designer has used environmentally friendly methods, what is the name of the label used to advertise the fact?

..... [1]

8 Name an alternative energy source that can be used in the production of textile products.

..... [1]

9 Cotton is a natural sustainable source. Name **one** other.

..... [1]

10 In the context of a company's moral issues what does **ETI** stand for?

..... [1]

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

Tick (✓) the box to show your answer.

True **False**

11 Smart materials can change due to changes in temperature. [1]

12 Wool is a non-reusable fibre. [1]

13 Manufacturers have to follow government guidelines on how to get rid of their waste. [1]

14 Lycra is made from a sustainable resource. [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 jacket made from Polartec fleece.



Fig. 1

(a) Describe what is meant by the term product analysis with reference to the Polartec fleece jacket shown in Fig. 1.

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

(b) The jacket is to be disassembled.

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

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

(c) The jacket in Fig. 1 is made from Polartec fleece.

Give **two** reasons why this fabric is considered environmentally friendly.

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

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

(d) The jacket is to be modified to wear in the winter.

On the outline below use notes and sketches show how the jacket design could be developed.



[4]

Total [15]

17 You have been asked to design an 'Eco friendly' bag to be sold at the local supermarket.

(a) (i) Name **one** natural fibre that the bag could be made from.

..... [1]

(ii) State **two** performance characteristics of your chosen fibre.

1

..... [1]

2

..... [1]

(b) Fig. 2 shows a label found attached to the bag.



Fig. 2

(i) Name the label shown in Fig. 2.

..... [1]

(ii) Explain what this label means and why it is important to the consumer.

.....

.....

.....

.....

..... [3]

(c) The bag is to be manufactured locally to the supermarket.

Describe **one** advantage to the environment of manufacturing locally.

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

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

Give **three** examples of how health and safety regulations protect the workers.

Example 1
.....
.....
..... [2]

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

Example 3
.....
.....
..... [2]

Total [15]

18 (a) There are **three** main types of textile recycling.

Explain each type of recycling.

(i) Primary recycling:

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

(ii) Secondary recycling:

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..... [3]

(iii) Tertiary recycling:

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

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