

**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 2 February 2011
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, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. 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. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Answer **all** the questions.
- 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** Which of the following fibres are not from a sustainable resource? [1]
- (a) Linen
 - (b) Silk
 - (c) Polyester
 - (d) Wool
- 2** Which of the following reduces wastage of material? [1]
- (a) Pattern markings
 - (b) Lay plan
 - (c) Pattern grading
 - (d) Commercial patterns
- 3** Smart labelling refers to: [1]
- (a) RFID tags
 - (b) Clothing labels
 - (c) Smart eye catching labels
 - (d) Symbols
- 4** LCA stands for: [1]
- (a) Life cycle accreditation
 - (b) Life cycle analysis
 - (c) Life cycle assessment
 - (d) Life cycle award
- 5** Improving the design of a textile item refers to: [1]
- (a) Recycle
 - (b) Rethink
 - (c) Refuse
 - (d) Reduce

6 The symbol shown stands for:



..... [1]

7 Name **one** natural fibre.

..... [1]

8 Name **one** of the three main types of recycling.

..... [1]

9 Name **one** recyclable textile material.

..... [1]

10 Fill in the missing word in the following sentence.

Dyes and chemicals are classed as substances. [1]

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

Tick (✓) the box to show your answer.

	True	False	
11 All fabrics are manufactured	<input type="checkbox"/>	<input type="checkbox"/>	[1]
12 COSHH is a legal requirement for manufacturers	<input type="checkbox"/>	<input type="checkbox"/>	[1]
13 Yarn can be made from a sustainable resource	<input type="checkbox"/>	<input type="checkbox"/>	[1]
14 Eco friendly and organic fibres are the same	<input type="checkbox"/>	<input type="checkbox"/>	[1]
15 Acrylic fibres are made from renewable resources	<input type="checkbox"/>	<input type="checkbox"/>	[1]

Total [15]

Section B

Answer **all** questions.

You are advised to spend 45 minutes on this section.

16 Fig.1 shows a pair of socks.

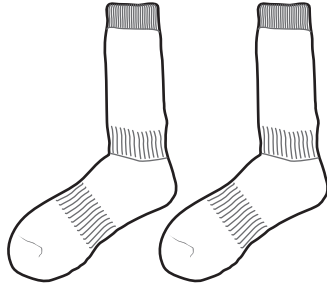


Fig.1

(a) Traditionally socks have been made from 100% wool.

Give **four** environmentally friendly reasons for using 100% wool.

Reason 1

.....

Reason 2

.....

Reason 3

.....

Reason 4

..... [4]

(b) Identify **two** disadvantages of using 100% wool for the sock.

Disadvantage 1

.....

Disadvantage 2

..... [2]

(c) The socks are to be modified and sold as 'high-tech' walking socks.

Identify **three** ways in which smart materials could be used to ensure the socks are 'high-tech'.

1

.....

2

.....

3

..... [3]

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PLEASE DO NOT WRITE ON THIS PAGE

17 Fig. 2 shows a fabric brooch made from recycled zip components.



Fig. 2

(a) Give **four** reasons why a designer chooses to use recycled fabrics and textile components.

Reason 1

.....

Reason 2

.....

Reason 3

.....

Reason 4

..... [4]

(b) Produce an annotated sketch to show a design for a piece of textile jewellery that would appeal to a teenager and address the recycling of materials and components.

[3]

18 Fig. 3 shows a t-shirt dyed with 100% natural dyes and made in India.

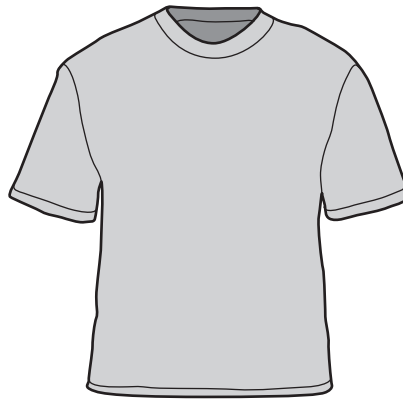


Fig. 3

(a) (i) Name **one** technique of dyeing fabric by hand.

..... [1]

(ii) Name **one** method of industrial dyeing

..... [1]

(b) Describe what is meant by natural dyes.

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

(c) Describe **one** problem associated with using natural dyes.

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

(d) Fig. 4 shows a care label found on the t-shirt.

Name **two** of the care symbols shown on the label.



- 1
- 2 [2]

Fig. 4

(e) Manufacturers have responsibilities for the health and safety of their workers when using dyes.

Identify **four** health and safety points to be followed when working with dyes.

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

