

<b>Candidate Forename</b>		<b>Candidate Surname</b>	
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<b>Centre Number</b>						<b>Candidate Number</b>				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**A572**

**DESIGN AND TECHNOLOGY**

**Textiles Technology**

**Sustainable Design**

**TUESDAY 22 JUNE 2010: Morning**

**DURATION: 1 hour**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the Question Paper**

**OCR SUPPLIED MATERIALS:**

**None**

**OTHER MATERIALS REQUIRED:**

**None**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.
- 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.
- 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 (\*).

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## 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.

Write True or False against the following statements

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.

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[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**

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**[2]**

**2**

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**[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]

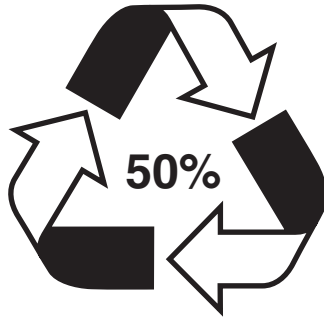
**(ii) State TWO performance characteristics of your chosen fibre.**

**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.**

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**[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** \_\_\_\_\_

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**[2]**

**Example 2** \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_ [2]

**Example 3** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_ [2]

**Total [15]**

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

**Explain each type of recycling.**

**(i) Primary recycling:**

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**[3]**

**(ii) Secondary recycling:**

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**[3]**



**(iii) Tertiary recycling:**

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**[3]**

**(b\*) Discuss how some current methods of textile production harm the environment.**

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