

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE**

A575/01

DESIGN AND TECHNOLOGY

Textiles Technology

**Sustainability and Technical Aspects
of Designing and Making**

TUESDAY 19 MAY 2015: Morning

**DURATION: 1 hour 30 minutes
plus your additional time allowance**

MODIFIED ENLARGED

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the boxes on the first page. 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.

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 80.

Your quality of written communication is assessed in questions marked with an asterisk (*).

Any blank pages are indicated.

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SECTION A

Answer ALL the questions.

You are advised to spend about 40 minutes on this section.

On questions 1–5 circle your answer.

1 A sweatshop is a term used to describe:

- (a) A factory manufacturing sweaters**
- (b) A factory specialising in knitwear**
- (c) A factory with poor working conditions**
- (d) A hot and sweaty environment**

[1]

2 Eco-friendly materials are mostly:

- (a) Non-sustainable**
- (b) Toxic**
- (c) Natural**
- (d) Chemical**

[1]

3 Product globalisation is:

(a) Worldwide

(b) Europe based

(c) Locally made and sold

(d) UK only

[1]

4 Anthropometrics refers to:

(a) The study of fibres

(b) The study of people and their measurements

(c) The study of the genetic data of people

(d) Fabric and fibre blends

[1]

5 Secondary recycling refers to:

(a) Buying new products

(b) Giving a product to a charity shop

(c) Fixing or mending a product

(d) Making a product into a different product

[1]

6 The symbol shown below represents:

_____ [1]



7 Which of the 6Rs describes when a customer decides not to buy a product?

_____ [1]

8 Taking a product apart is called:

_____ [1]

9 Give the term that describes products which are designed to fail after a set period of time.

_____ [1]

10 State ONE non-sustainable energy resource.

_____ [1]

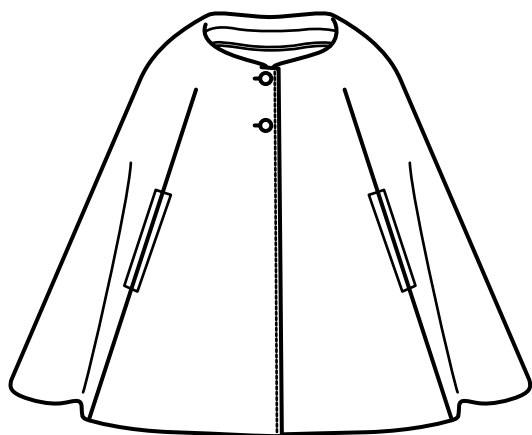
Decide whether the statements below are TRUE or FALSE.

Tick (✓) the box to show your answer. TRUE FALSE

- | | | | | |
|-----------|----------------------------------------------------------------------|--------------------------|--------------------------|------------|
| 11 | Polartec fleece can be made from recycled car tyres | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 12 | A biodegradable material will rot naturally in landfill | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 13 | To approach a design problem in a different way is to rethink | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 14 | The country of origin is always on a textile product label | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 15 | Toxic materials do not harm the environment | <input type="checkbox"/> | <input type="checkbox"/> | [1] |

16 Fig. 1 shows a cape.

FIG. 1



(a) (i) Name THREE natural fibres that the cape could be made from.

1 _____

2 _____

3 _____

[3]

(ii) Give THREE advantages to the environment of using natural fibres.

1 _____

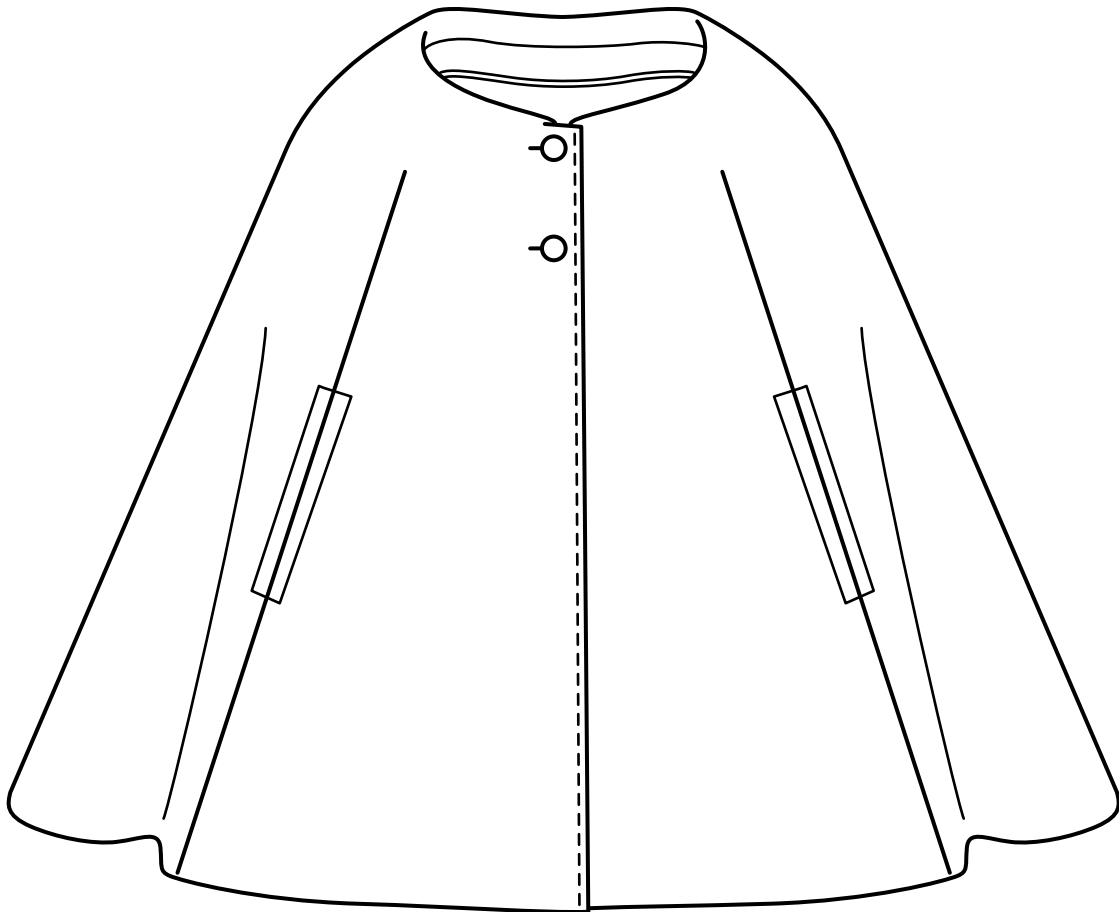
2 _____

3 _____

[3]

(b) The cape is to be modified to be worn in the winter.

On the outline below, use notes and sketches to show how the cape design could be modified.



[6]

[illegible]

(d) (i) Most textile products are packaged.

State TWO reasons for packaging textile products.

1 _____

2 _____

[2]

(ii) Give TWO examples of packaging materials that are harmful to the environment.

1 _____

2 _____

[2]

TURN OVER FOR SECTION B

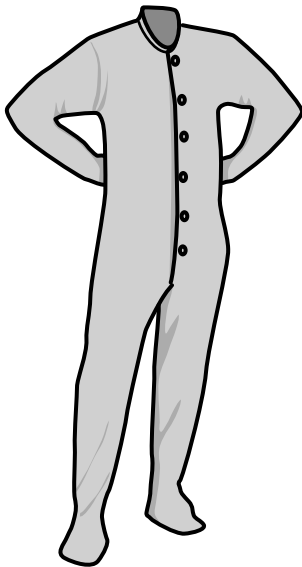
SECTION B

Answer ALL the questions.

You are advised to spend 50 minutes on this section.

- 17 (a) Fig. 2 shows an all-in-one sleep suit made from polyester fleece fabric.**

FIG. 2



Give FOUR performance characteristics of polyester fleece fabric that make it suitable for a sleep suit. [4]

1 _____

2 _____

3 _____

4 _____

(b) Explain the following THREE stages in the design process.

Product research

Product planning

Product evaluation

[6]

(c) The sleep suit will be made using batch production.

(i) State the meaning of the term pattern grading.

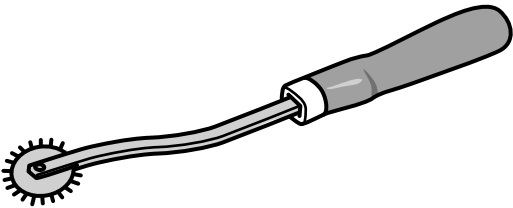
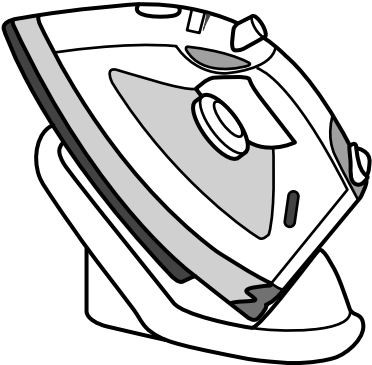
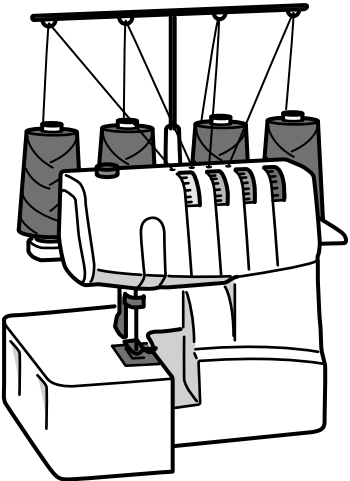
_____ [1]

(ii) State the meaning of the term pattern lay.

_____ [1]

(d) The sleep suit will be assembled using a range of equipment.

In the chart below name the THREE pieces of equipment.

Equipment	Name
	
	
	

[3]

**18 (a) A textile manufacturer is to introduce a range of mobile phone cases for teenagers.
The cases should be:**

appealing to boys and girls

decorative

easy to carry.

In the space below sketch a design for a mobile phone case.

Annotate your sketch to show design and construction details and how it meets the specification.

- (b) The manufacturer wants to incorporate nanotechnology to sell the case as a high tech product.**

Explain what is meant by nanotechnology.

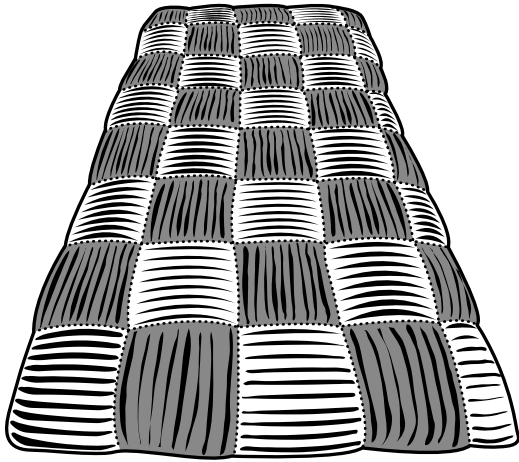
[3]

(c)* Discuss the benefits of manufacturing textile products in quantity.

[6]

19 Fig. 3 shows a bed throw made from gathered fabric.

FIG. 3



(a) Gathering is one method of disposal of fullness.

Give TWO other methods of disposal of fullness.

1 _____

2 _____

[2]

(b) Using notes and/or diagrams, explain how to gather fabric using a sewing machine.

[4]

(c) The bed throw shown in Fig. 3 is to be quilted.

State THREE advantages of quilting a bed throw.

1 _____

2 _____

3 _____

[3]

(d) Using notes and/or diagrams, complete the table below to show how to work machine quilting.

Stage	Method
Preparation	
Working	
Finishing	

[6]

ADDITIONAL ANSWER SPACE

If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.

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