

**Tuesday 19 May 2015 – Morning**

**GCSE DESIGN AND TECHNOLOGY**  
**Textiles Technology**

**A575/01** Sustainability and Technical Aspects of Designing and Making

Candidates answer on the Question Paper.

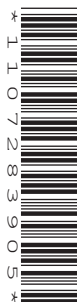
**OCR supplied materials:**

None

**Other materials required:**

None

**Duration:** 1 hour 30 minutes



Candidate forename		Candidate surname	
Centre number		Candidate number	

**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. 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.
- 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 **80**.
- Your quality of written communication is assessed in questions marked with an asterisk (\*).
- This document consists of **16** pages. Any blank pages are indicated.

**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.

- |  | <b>True</b>              | <b>False</b>             |     |
|--|--------------------------|--------------------------|-----|
| 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] |

4

16 Fig. 1 shows a cape.

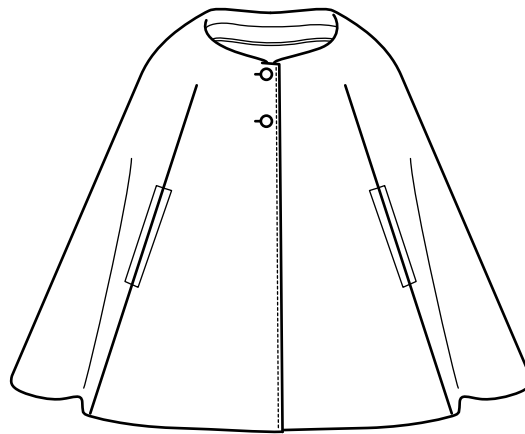


Fig. 1

(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]

5

(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.



[4]

**(c)\*** Explain how moral and cultural changes in society can affect the design of textile fashion products.

..... [6]

7

(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]

8

## 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.

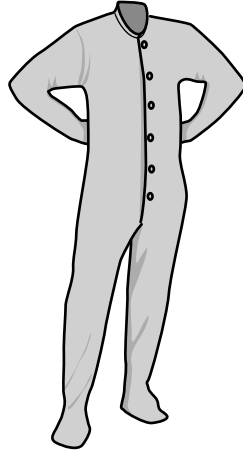


Fig. 2

Give **four** performance characteristics of polyester fleece fabric that make it suitable for a sleep suit.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

[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.

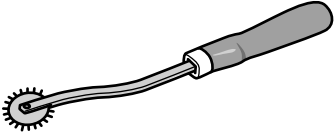
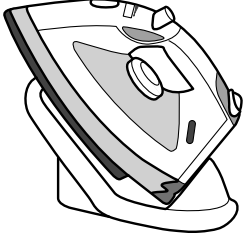
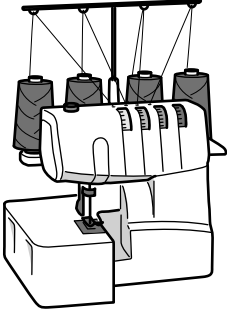
.....

..... [1]

10

(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.

[6]

- (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]

13

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

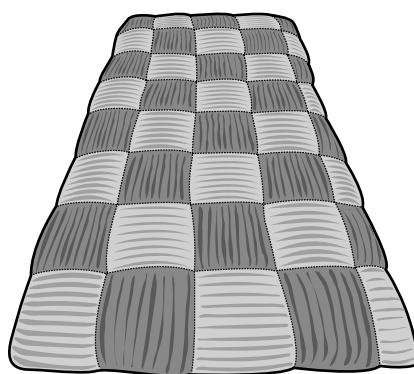


Fig. 3

(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]

14

- (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]

END OF QUESTION PAPER

**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.

This block contains a large rectangular area for writing answers. It is defined by a solid vertical line on the left and horizontal dotted lines extending across the page. There are 20 horizontal dotted lines in total, providing ample space for writing.

[illegible]

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