

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE**

A575/01

**DESIGN AND TECHNOLOGY
Textiles Technology**

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

TUESDAY 24 MAY 2016: Morning

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

MODIFIED ENLARGED

Candidate forename						Candidate surname				
Centre number						Candidate number				

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.

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.

Answer ALL the questions in Section A AND Section B.

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 the 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 Reducing the use of dangerous chemicals in textile manufacturing can:

(a) Endanger the environment

(b) Increase pollution

(c) Protect the environment

(d) Add to global warming

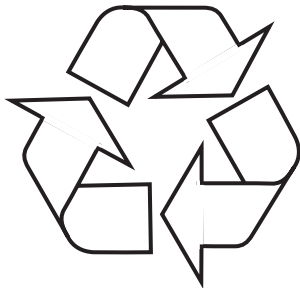
[1]

2 ETI stands for:

- (a) Ethical Trading Institute**
- (b) Ethical Trading Initiative**
- (c) Ethical Transport Initiative**
- (d) Ethical Transport Institution**

[1]

3 The symbol shown below means:



- (a) This product cannot be recycled**
- (b) This product can be recycled**
- (c) This product never wears out**
- (d) This product cannot bio-degrade**

[1]

4 Bullet proof vests are made from:

(a) Neoprene

(b) Polartec

(c) Nomex

(d) Kevlar

[1]

5 Synthetic fibres can be made from:

(a) Oil

(b) Wool

(c) Plants

(d) Trees

[1]

6 Name ONE source of renewable energy.

_____ [1]

7 Which of the 6Rs describes the disassembly and reprocessing of materials for use in new products?

_____ [1]

8 Name the symbol shown below.

_____ [1]



- 9 State the term that describes the designing, making, marketing, using and disposing of a product.**

_____ **[1]**

- 10 Complete the following to give the full meaning of the abbreviation COSHH.**

C _____ **of** **S** _____

H _____ **to** **H** _____ **[1]**

Decide whether the statements below are TRUE or FALSE.

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

11 All unwanted products should be sent to landfill. ☐ ☐ **[1]**

12 Globalisation refers to buying and selling only in the UK. ☐ ☐ **[1]**

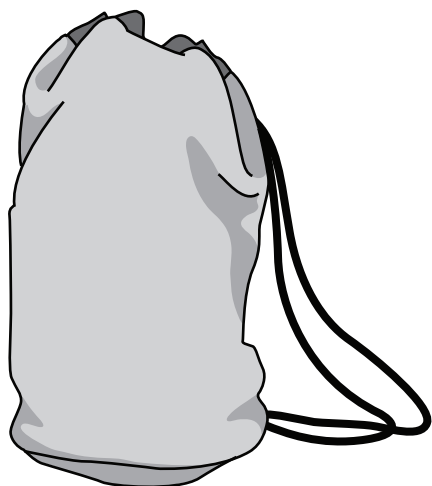
13 Designers can include built-in obsolescence in their products. ☐ ☐ **[1]**

14 Geotextiles are only made from silk. ☐ ☐ **[1]**

15 Linen is a natural fibre. ☐ ☐ **[1]**

16 Fig. 1 shows a bag made from woven cotton fabric.

Fig. 1



(a) State THREE reasons why a woven cotton fabric is suitable for a bag.

1 _____

2 _____

3 _____

[3]

**(b) The bag was manufactured overseas.
Give THREE reasons why a UK company may
choose to manufacture their products overseas.**

1 _____

2 _____

3 _____

[3]

(c) The bag has become unfashionable and needs to be redesigned.

In the space below and on the opposite page, sketch a design for the bag.

The bag must be:

educational

appealing to the 5–9 age group.

Annotate your sketch to show ALL design and construction details.

[6]

(d) The bag has reached the end of its life span and is to be recycled.

Give TWO different ways of primary recycling the bag.

1 _____

2 _____

[2]

(e)* Explain ways that a manufacturer can ensure that production is environmentally friendly. [6]

SECTION B

Answer **ALL** the questions.

You are advised to spend **50 minutes** on this section.

17 Fig. 2 shows a prototype knitted seat.

Fig. 2



(a) The seat is made from an undyed yarn.

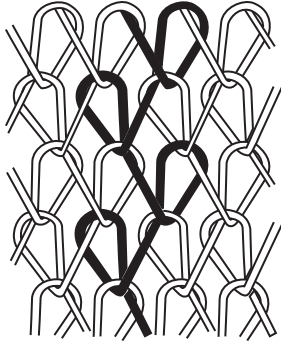
Give **TWO** advantages of using undyed yarn for the seat.

1 _____

2 _____

[2]

(b) (i) Tick (✓) the box to name the type of knitting shown below.



WARP KNITTING	WEFT KNITTING
----------------------	----------------------

[1]

(ii) Give THREE performance characteristics of knitted fabric.

1 _____

2 _____

3 _____

[3]

(c) Name ONE finish that could be applied to the knitted seat fabric to improve its performance.

FINISH _____

Explain why your choice of finish is appropriate for the seat.

_____ [3]

(d)* The seat is a prototype.

Discuss the advantages to a manufacturer of making a prototype.

[6]

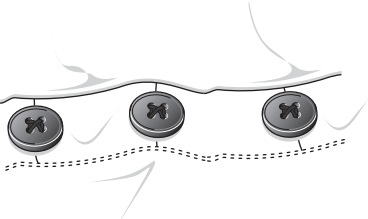
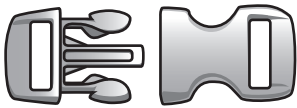
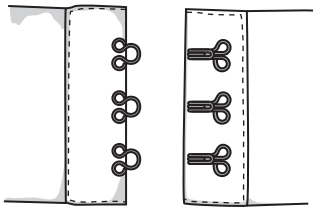

[illegible]

18 (a) The table below shows fastenings which can be found on textile garments.

Name the fastenings shown in the table.

Give ONE different textile garment for each fastening.

The first one has been done for you.

FASTENING	NAME OF FASTENING	TEXTILE GARMENT
	Button	Shirt
		
		
		

[6]

(b) Fastenings are an important part of garment making.

Describe, using notes and/or diagrams, how to work a machine stitched buttonhole.

[6]

(c) Quality control checks are carried out on finished garments.

State THREE quality control checks that could be carried out on a finished garment.

1 _____

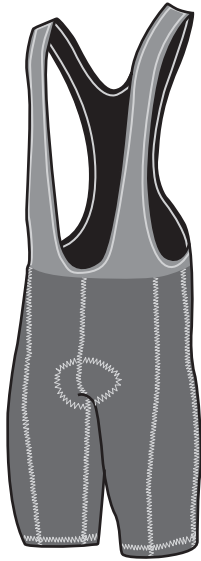
2 _____

3 _____

[3]

19 Fig. 3 shows a pair of cycling bib shorts.

Fig. 3

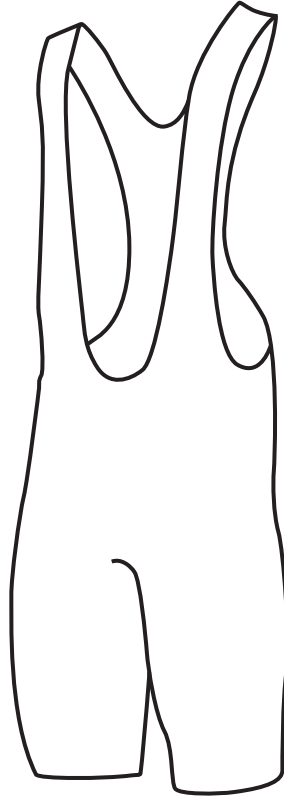


- (a) The bib shorts are made from a blend of Nylon/Polyester and Elastane fibres.
State ONE advantage of this fibre blend for the bib shorts.**

[1]

(b) The cycling bib shorts are to be modified for winter use.

On the outline below, use notes and sketches to show how the bib shorts could be developed. [4]



(c) Describe THREE ways in which smart materials can be used to enhance performance characteristics of modern sportswear.

1 _____

2 _____

3 _____

[6]

(d) The bib shorts are manufactured using the Just-in-time (JIT) system.

Describe TWO advantages to the manufacturer of the JIT manufacturing system.

1 _____

2 _____

[4]

END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

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

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