

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

GCSE

DESIGN AND TECHNOLOGY: TEXTILES TECHNOLOGY

Unit 1 Written Paper

Tuesday 24 May 2016

Morning

Time allowed: 2 hours

Materials

For this paper you must have:

- a black pen
- a pencil
- a ruler
- an eraser
- a pencil sharpener
- coloured pencils.

Instructions

- Use black ink or black ball-point pen. Use pencil and coloured pencils only for drawing.
- Answer **all** questions.
- Fill in the boxes at the top of this page.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 120.
- Section A relates to the context referred to in the Preliminary Material that was previously issued.
- You are reminded of the need for good English and clear presentation in your answers. Quality of Written Communication will be assessed in Question 3(a).



There are no questions printed on this page

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**



Section A

Answer **all** questions in the spaces provided.

Question 1 is about design ideas for a textile product and sustainability.

You should spend about 35 minutes on this question.

Design Brief

You are going to design a textile product inspired by the theme of marine life.

Here is a mood board based on the theme of marine life.



1 (a) Give **two** ways that mood boards can inspire design ideas.

[2 marks]

1 _____

2 _____

Turn over ►



1 (b) Sketch **two** different initial design ideas for a textile product.

Do not use colour.

The textile product must:

- be based on the theme of marine life
- include a range of fabrics and components.

There are 6 marks for **each** design idea. Marks will be given for:

- creativity and originality of idea based on the theme [2 marks]
- use of a range of fabrics and components [2 marks]
- quality of notes and sketches. [2 marks]

Use a pencil to sketch and label **two** different design ideas based on the design brief.

Design Idea A



Design Idea B

1 (c) Tick the box to show the idea you have chosen to develop.

Design Idea A

Design Idea B

Give **one** way of developing your textile product so that it promotes conservation of marine life.

An example is given below:

Include sustainable fabrics and components in your design.

[1 mark]

Turn over ►



1 (d) Use sketches, labelling and notes to present a final design in colour for your textile product.

Include components inspired by the theme and sustainable fabrics in your design.

Use this page and the next page to show your textile product in a presentation drawing.

Marks will be given for:

- creativity and quality of design including decorative techniques **[5 marks]**
- use of a range of fabrics including sustainable fabrics **[4 marks]**
- use of components inspired by the theme **[3 marks]**
- effective use of colour **[3 marks]**
- presentation of the final idea including different views of textile product. **[2 marks]**



Question 1 continues on the next page

Turn over ►



1 (e) Your textile product will be on sale in marine life centres nationwide.
Explain how you can change your design so that it is more suitable for batch
production.

[3 marks]



Section B

Answer **all** questions in the spaces provided.

Question 2 is about product design and testing.

You should spend about 15 minutes on this question.

2 Look at the tents in the photographs below.

Tent A



Tent B



2 (a) (i) The tents are designed for two different types of people. Give the target market and intended use for each tent.

[4 marks]

Target market and intended use for Tent A

Target market and intended use for Tent B

Turn over ►



2 (a) (ii) Fill in the table below to show **three** comparisons between the design of Tent A and the design of Tent B. One example has been completed for you.

[3 marks]

Tent A	Tent B
Ground sheet incorporated	No ground sheet/tent bottom

2 (b) Tents A and B use **different** fabrics and finishes. Name a different suitable fabric and finish for Tent A and Tent B.

[4 marks]

Tent A

Fabric _____

Finish _____

Tent B

Fabric _____

Finish _____



2 (c) List **four** components included in a tent.

[4 marks]

Component 1 _____

Component 2 _____

Component 3 _____

Component 4 _____

2 (d) Give **two** ways to test a tent.

[2 marks]

1st Test _____

2nd Test _____

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Turn over for the next question

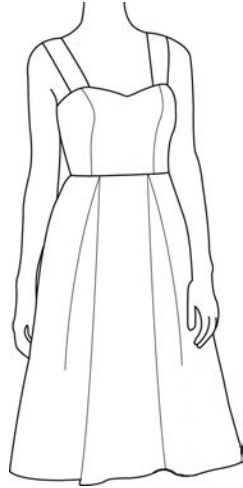
Turn over ►



Question 3 is about fabric colouring, decoration and product maintenance.

You should spend about 20 minutes on this question.

3 Look at the plain dress in the drawing below.



3 (a) Describe some dyeing, printing and surface decorative techniques that could be used to add colour and texture to different parts of the dress. Include some suitable fabrics and decorative components.

You will be assessed on Quality of Written Communication (QWC) in this question.

[8 marks]

3 (b) Circle the correct symbol shown below for the decorative dress care label.

[1 mark]



3 (c) Explain why the symbol you have circled shows the most suitable wash care instruction for the dress.

[2 marks]

Turn over ►



3 (d) Use notes and diagrams to explain **one** dyeing, printing or surface decorative technique.

Marks will be awarded as follows:

- name of the technique **[1 mark]**
- equipment needed **[1 mark]**
- step-by-step instructions **[2 marks]**
- quality of notes and sketches. **[2 marks]**

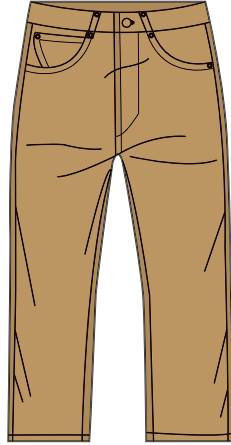
Name of technique _____



Question 4 is about product design and safety.

You should spend about 20 minutes on this question.

4 Look at the outdoor work trousers in the drawing below.



4 (a) The trouser fabric fibre content is 96% nylon and 4% elastane. List **three** advantages of this fibre content.

[3 marks]

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

Question 4 continues on the next page

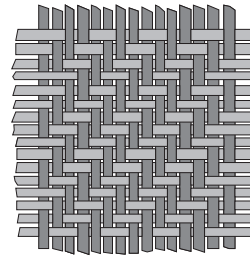
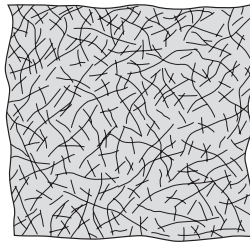
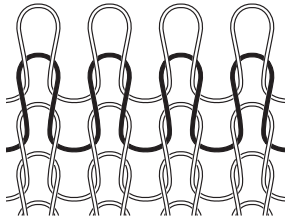
Turn over ►



4 (b) (i) The trousers are made from woven fabric.

Tick the box to show the method of woven fabric construction.

[1 mark]



4 (b) (ii) What is the name of this weave?

[1 mark]

4 (b) (iii) Give **two** reasons why this is a suitable method of fabric construction for outdoor work trousers.

[2 marks]

Reason 1 _____

Reason 2 _____

4 (c) Explain how the style of the trousers could be improved to make them more suitable for outdoor work.

[4 marks]



4 (d) The trouser fabric is brown and made from nylon and elastane.

Name or describe **two** different fabrics that could be used to make the trousers safer for working outdoors.

Explain how each fabric makes the trousers safer.

[4 marks]

Fabric 1 _____

Reason for safety _____

Fabric 2 _____

Reason for safety _____

4 (e) Discuss how electronic devices in the trousers would improve the wearer's safety or comfort.

[4 marks]



Question 5 is about product design and manufacture.

You should spend about 20 minutes on this question.

5 Look at the drawstring bag in the drawing below.



5 (a) The simple drawstring bag sells well in many supermarkets throughout the year.

Circle the correct method of large volume production.

[1 mark]

Batch

Mass

One-off

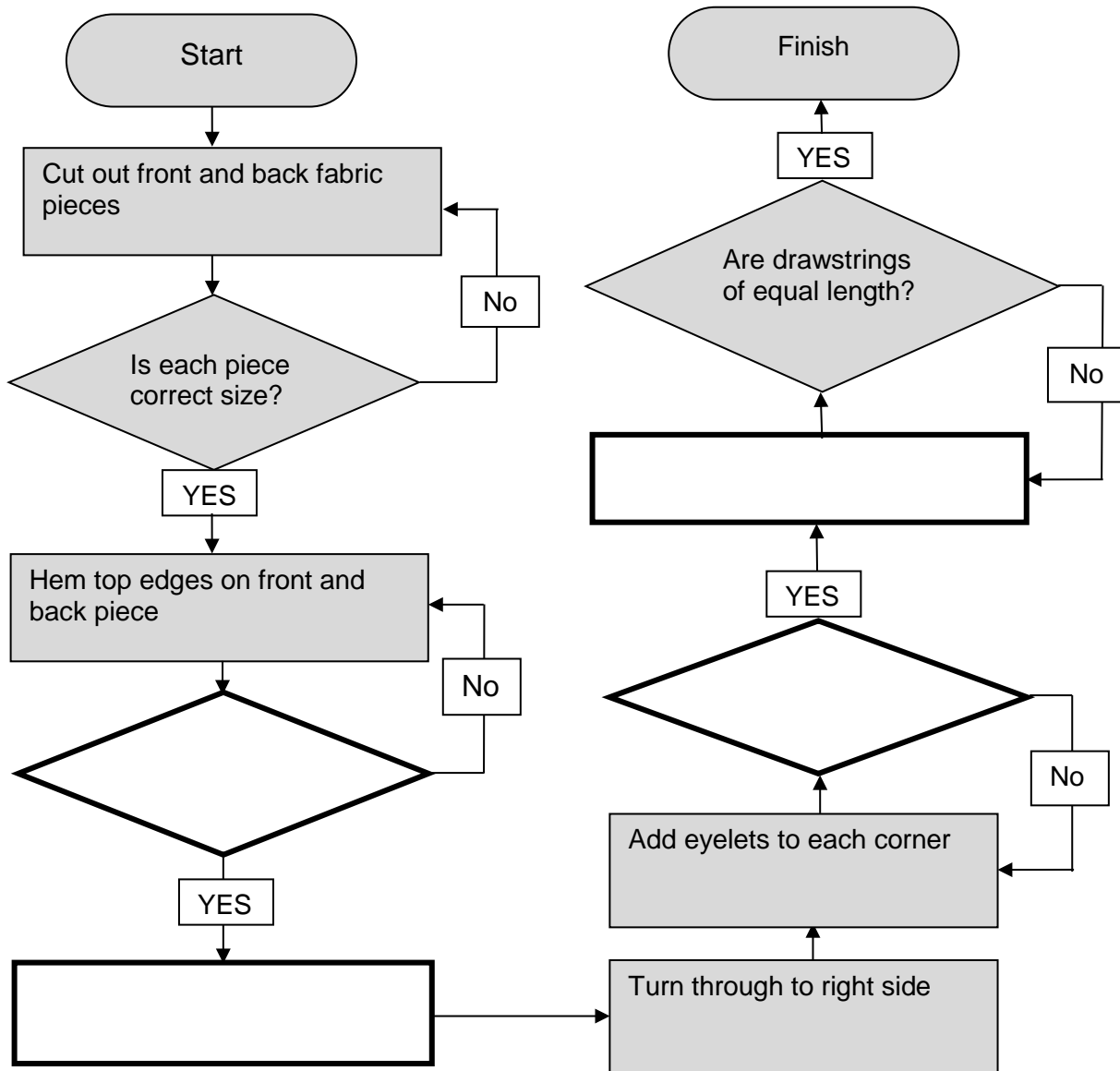


5 (b) (i) The flow chart below shows how to make a simple drawstring bag.

Complete the flow chart to show the stages of production and the quality control checks.

Some boxes have been filled in.

[4 marks]



Question 5 continues on the next page

Turn over ►



5 (b) (ii) Give **three** reasons why product manufacturers use flow charts.

[3 marks]

Reason 1 _____

Reason 2 _____

Reason 3 _____

5 (c) (i) A school needs a stronger drawstring bag with a place to keep a swim pass dry. The bag must also show the school logo.

Suggest **three** design modifications to meet this school's requirements and state the reason for an increase in production cost. One example has been done for you.

[6 marks]

Design modification	Reason for increase in production cost
Top stitching around sides and bottom of bag to reinforce seams.	Extra stitching takes longer and uses more thread.

5 (c) (ii) Circle the correct method of production for the school's stronger drawstring bag.

[1 mark]

Batch

Mass

One-off



5 (d) (i) Explain how Computer Aided Design (CAD) can reduce costs.

[3 marks]

5 (d) (ii) Explain how Computer Aided Manufacture (CAM) can reduce costs.

[3 marks]

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Turn over for the next question

Turn over ►



Question 6 is about social, moral and environmental issues.

You should spend about 10 minutes on this question.

6 Look at the football clothing in the photograph below.



6 (a) Football shirts sometimes display logos advertising alcohol or online betting brands. Explain why some people are against the use of these logos.

[3 marks]



6 (b) Football fans often support their clubs by wearing the latest football shirts. Some football shirts are made in the Far East and cost £90.

Discuss why this may be a moral and social issue.

[4 marks]

6 (c) Some football shirts are made from 96% recycled polyester and 4% organic cotton. Explain why this fibre content is sustainable.

[4 marks]

END OF QUESTIONS



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