

Candidate Name	Centre Number	Candidate Number

WELSH JOINT EDUCATION COMMITTEE
General Certificate of Secondary Education



CYD-BWYLLGOR ADDYSG CYMRU
Tystysgrif Gyffredinol Addysg Uwchradd

143/04

DESIGN AND TECHNOLOGY

PAPER 2

FOCUS AREA: TEXTILES TECHNOLOGY

(Higher Tier – Grades D to A*)

P.M. TUESDAY, 5 June 2007

(1½ hours)

	Leave Blank
Question 1	
Question 2	
Question 3	
Question 4	
Question 5	
TOTAL MARK	

ADDITIONAL MATERIALS

In addition to this examination paper you will need coloured pencils.

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation correctly.

INFORMATION FOR CANDIDATES

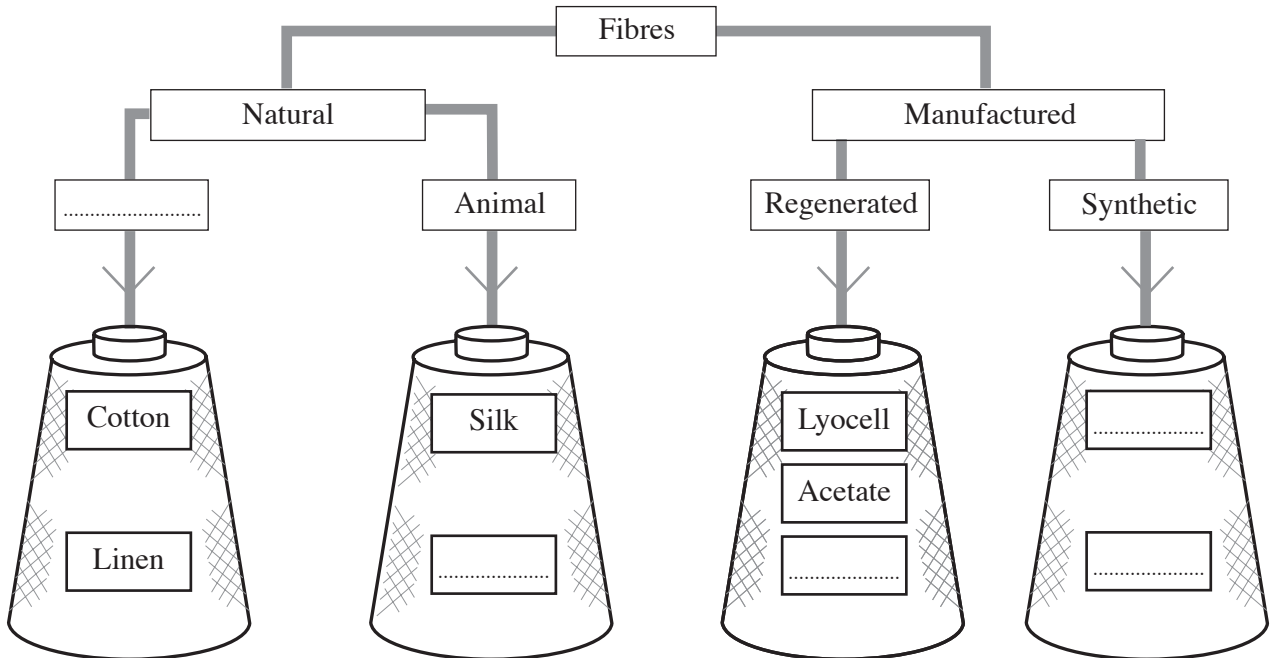
The number of marks is given in brackets at the end of each question or part-question.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

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

1. (a) A diagram which shows the sources of textiles fibres is shown below. Complete **all** the missing labels. [5]



- (b) Tick (✓) which **two** of the following statements are correct. [2]

- Fibres can be twisted together to make a yarn.
- Static charges can build up in cotton clothing which then clings to the wearer.
- Micro-fibres are 60 times finer than silk fibres.

- (c) (i) Lyocell is a cellulosic fibre that is sold under a commercial brand known as Tencel®. Tencel® is blended with other fibres to make a fabric. [2]

Give **two** ways this improves the quality of the final fabric.

Improvement 1:

Improvement 2:

- (ii) Cellulosic fibres are considered to be environmentally friendly. Give **two** reasons why they are not harmful to the environment. [2]

Reason 1:

Reason 2:

(d) The three diagrams below show different methods of making materials. From the list given, choose the correct name for **each** method. [3]

Knitting

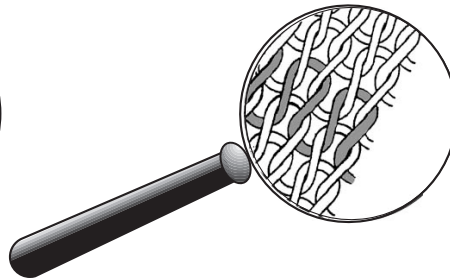
Laminating

Bonding

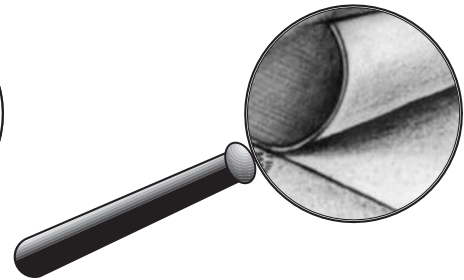
Weaving



Method 1



Method 2



Method 3

(e) The material used to make a ski jacket, like the one shown below, needs to have good insulation and low absorption properties.



Using notes and/or sketches, describe **two** simple tests that you could use to compare the insulation **and** absorption properties of materials being considered for the ski jacket. 2 × [3]

Insulation Test

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Absorption Test

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2. (a) (i) State the **three** Primary colours. [1]

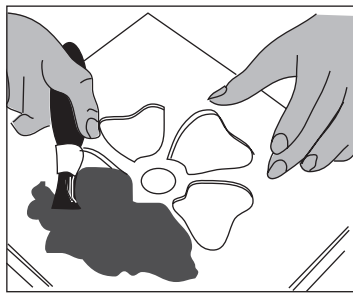
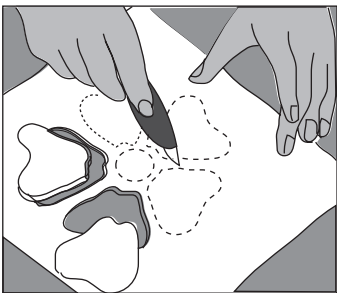
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(ii) State the **three** Secondary colours. [1]

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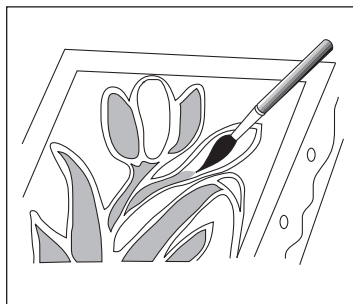
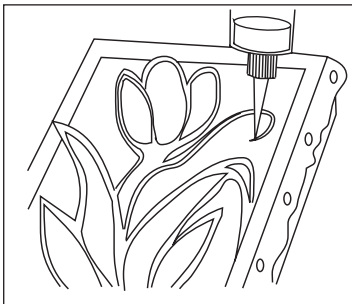
(b) (i) The pictures below show some different ways of putting a pattern onto textile materials. Name **each** method. [3]

I



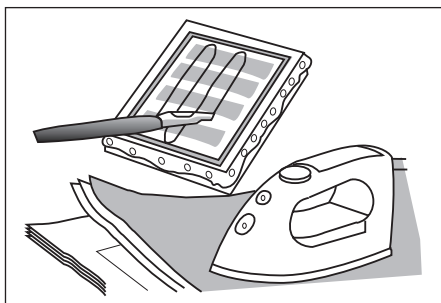
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II



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III



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(ii) Name **two** industrial methods used for printing textile materials. [2]

Method 1:

Method 2:

(c) The picture below shows CAD being used to design a pattern for a textile material.



Explain **three** features of CAD software that could be used for developing such patterns.
One example has been done for you. 3 × [2]

Features: Using a grid allows accurate positioning of shapes.

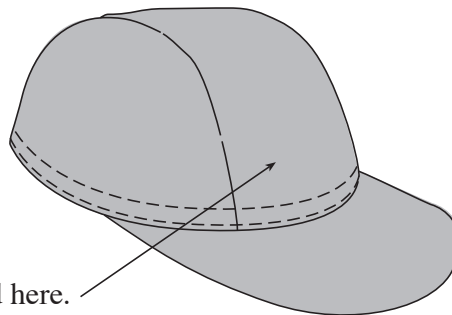
Feature 1:

Feature 2:

Feature 3:

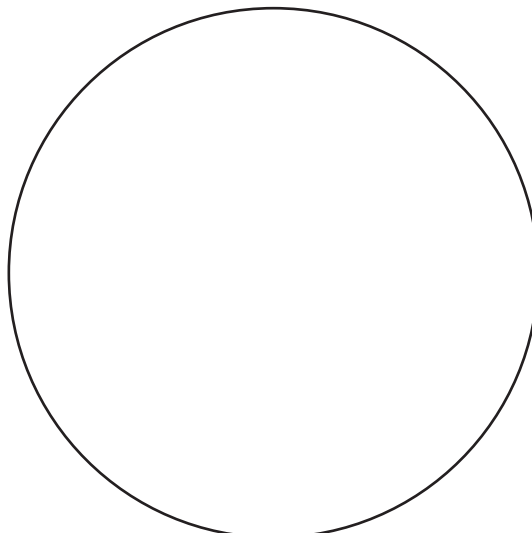
(d) A sketch of a baseball cap to be worn at a sporting event is shown below.

A logo is to be added to the baseball cap using appliqué or embroidery. Design a suitable **sports logo** which can be applied to the cap. Add notes to explain your idea. [5]

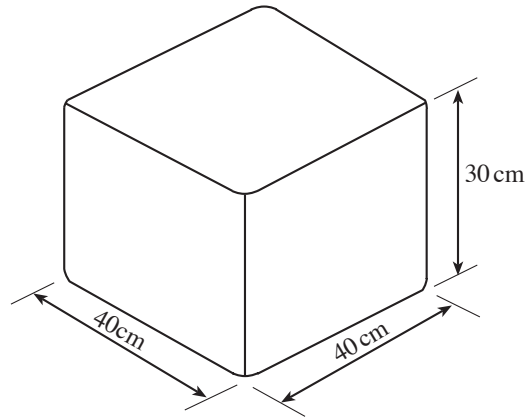


The logo is to be placed here.

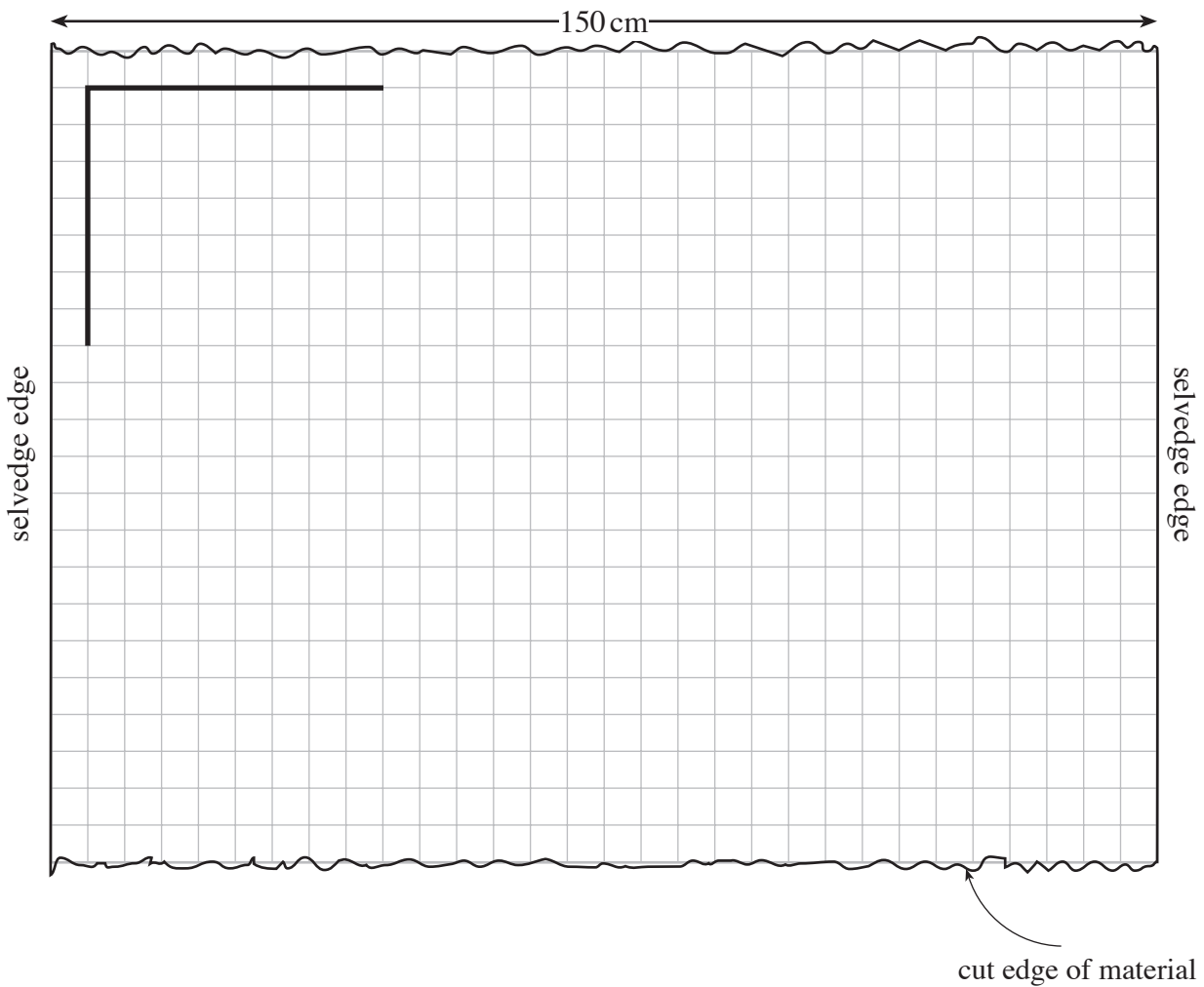
Draw your idea in the circle below.



3. The sketch below shows a simple idea for a floor cushion. It is 40 cm × 40 cm × 30 cm.



- (a) (i) On the grid below, draw the layout for the templates needed to make the cushion. Your layout must make the most economical use of material. The seam allowance is 1.5 cm. The material is 150 cm wide. [5]
Part of the diagram has been started for you.



- (ii) State the length of material needed to make the floor cushion. [1]

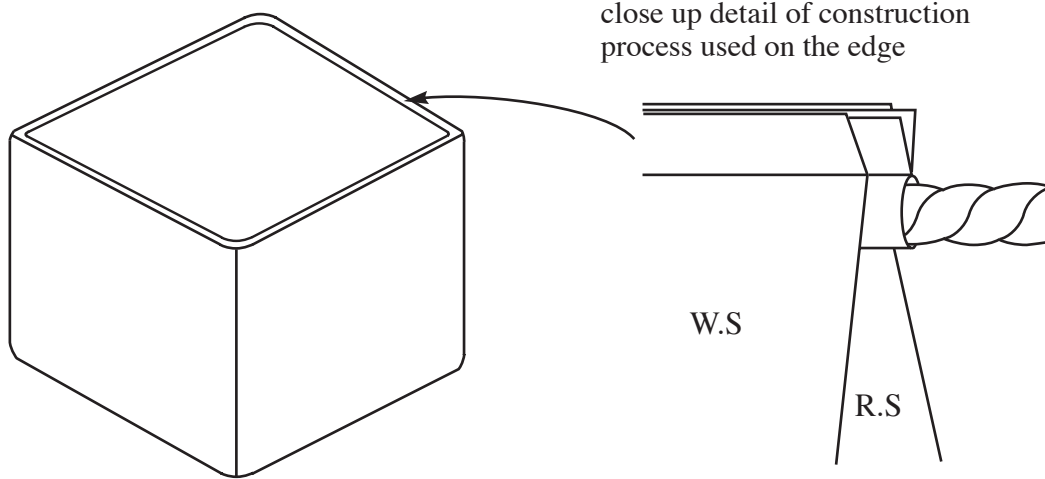
(iii) The material costs £12.50 per metre length. State the price you would have to pay for the length of material you have stated in (a)(ii). Show your calculations. [2]

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(iv) The cushion is to be made from cotton corduroy. Describe **one** important thing to remember when joining the upright sides together to make the cushion. [2]

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(b) Details of the process used to finish the top edge of the floor cushion are shown below.



(i) Name this process. [1]

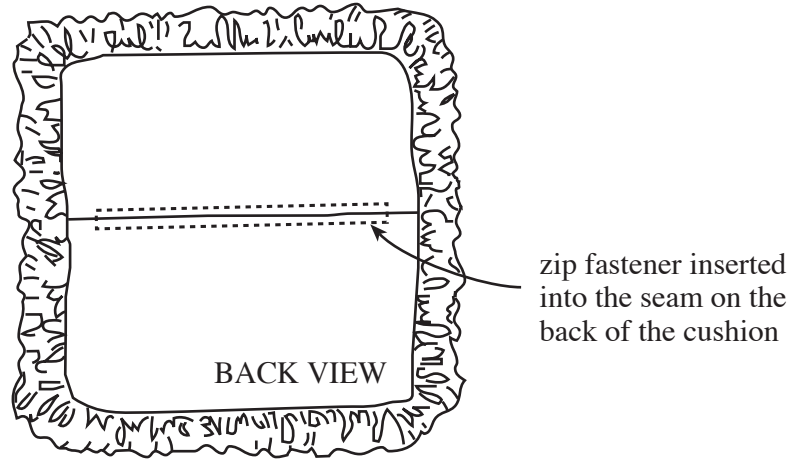
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(ii) Give **two** reasons why the designer has chosen this process. [2]

Reason 1:

Reason 2:

- (c) A different cushion is sketched below. The back view shows a zip fastener which allows the cover to be removed for washing.



- (i) Draw and describe a different method for having an opening which adds a decorative feature to the cushion. [4]

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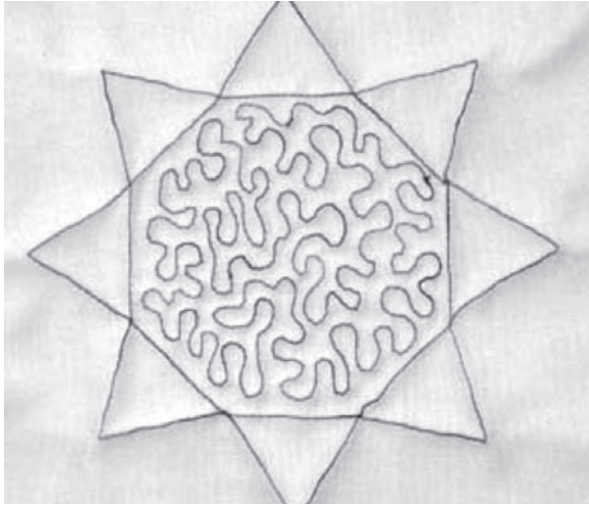
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(ii) Name the decorative process which is being applied to the front of the cushion. [1]



Process

(iii) Describe **one** quality check that should be made when this process is being carried out. [2]

Quality check:

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4. A moodboard is shown below.



(a) Describe in detail, why designers create a moodboard as part of their research. [3]

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(b) The fashion industry can be divided into different sectors.
State **one** sector of the fashion market and describe its main features.

Sector: [1]

Main features:

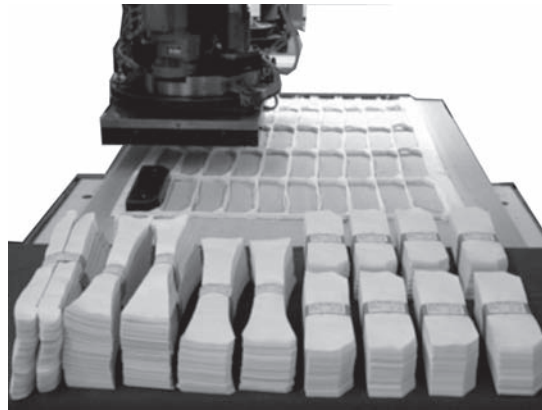
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[2]

- (c) The picture below shows a factory system for cutting out the different pieces to make jackets.



- (i) Describe **two** features of the industrial system shown in this picture that make it a suitable method for mass production. 2 × [2]

Feature 1:

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Feature 2:

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- (ii) Explain how CIM is used in the textile industry. [3]

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- (d) Different construction processes are shown below. For **each** one, identify the name of the process and explain where you would use it. [4]

PROCESS	NAME	USE
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	<p>.....</p> <p>.....</p>	<p>.....</p> <p>.....</p> <p>.....</p>

5. Skate boarding is a popular activity. Design a two-piece co-ordinated outfit that reflects a skate boarding theme.

(a) **Sketch** your designs for a two-piece co-ordinated outfit using the silhouettes provided on the opposite page.

Your design must:

- be suitable for both males and females;
- reflect the skate boarding theme;
- show labelling of accurate style details;
- have a co-ordinated colour scheme;
- be made of suitable comfortable and durable materials.

Marks will be awarded for:

- (i) good graphical communication of the front and back views; [6]
- (ii) clear labelling to show:
 - the names of **two** specific suitable materials; [2]
 - **four** specific style details; [4]
- (iii) a creative interpretation of the skate boarding theme; [5]
- (iv) a co-ordinated colour scheme. [4]

(b) Explain why your design is suitable for both male and female skate boarders. [2]

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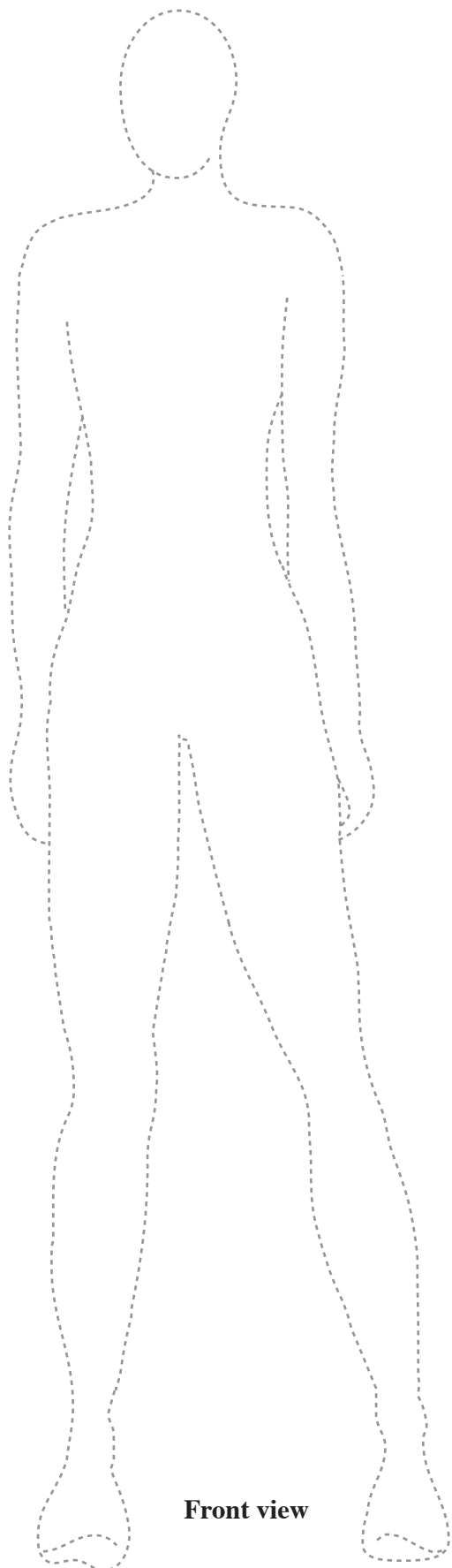
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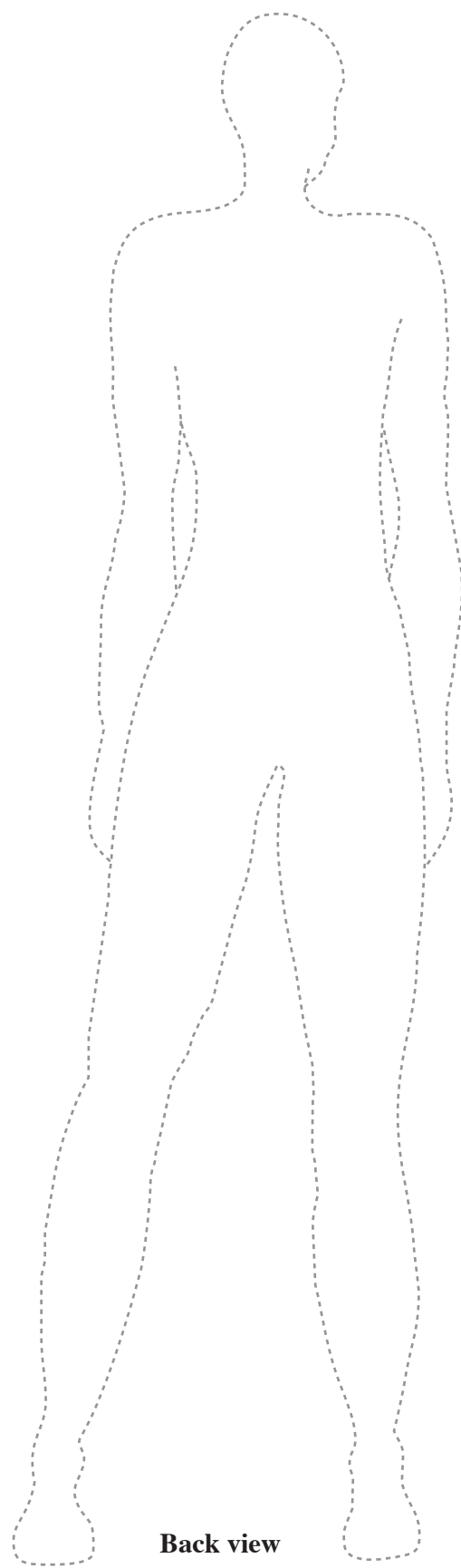
(c) Explain how your design is influenced by the skate boarding theme. [2]

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Front view



Back view

For continuation only.

Ruled area for continuation, consisting of 31 horizontal dotted lines.