

Surname	Centre Number	Candidate Number
Other Names		2



GCE A LEVEL – NEW

1602U30-1



FRIDAY, 7 JUNE 2019 – MORNING

DESIGN AND TECHNOLOGY – A2 unit 3

Fashion and Textiles

2 hours 30 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	8	
2.	8	
3.	12	
4.	12	
5.	8	
6.	8	
7.	12	
8.	12	
9.	8	
10.	12	
Total	100	

ADDITIONAL MATERIALS

A calculator, ruler, pencils and coloured pencils.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Answer **ALL** questions.

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

Write your answers in the spaces provided in this booklet. If you run out of space, use the continuation page at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question. You are advised to divide your time accordingly.

The total number of marks available is 100.

You are reminded of the need for good English and orderly, clear presentation in your answers. The quality of your written communication, including appropriate use of punctuation and grammar, will be assessed in your answer to question **10**.

Answer all questions.

1. The selection of materials and component parts is critical to the success of fashion and textile products.

(a) There are many types of zip fasteners available to the designer. Explain why a metal zip has been chosen for the front of the denim rucksack shown below. [3]



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(b) Coated canvas has been used for parts in the construction of the rucksack. Describe the specific properties of coated canvas that make it suitable for the rucksack. [2]

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- (c) The rucksack has adjustable shoulder straps. Using notes and sketches, name a suitable component that would allow the adjustment of the straps and explain how it works. [3]

(Label your sketch to show the named component)

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2. Study the information below which relates to the sports shirt worn by members of a professional sports team.



Product Information:

- Body: Micro-encapsulated polyester microfibre
- Mesh: Polyester/Elastane
- Insets: Nylon/Elastane
- Textured-mesh side panels

- (a) Describe the importance of aesthetics when designing the sports shirt. [2]

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- (b) Explain how the choice of materials supports the function of the sports shirt. [6]

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3. Technological developments present many opportunities for innovative new products.

(a) Explain how technology-push has led to the creation of the fabric keyboard shown below. [4]



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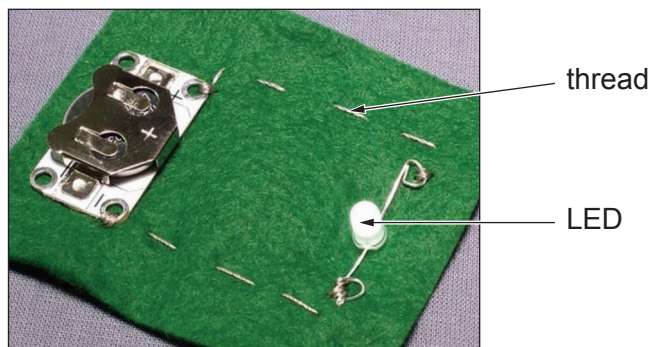
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(b) Study the simple e-textile circuit shown below and describe the significance of the thread. [2]



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(c) Describe the most suitable scale of production for a limited number of children's winter jackets that include a GPS tracking system. *Fully justify your answers.* [6]

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4. Fashion and textile products can be embellished using a wide variety of techniques.

(a) The motif below has been machine embroidered. Describe how CAD and CAM has been used to produce this motif. [3]



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(b) Describe **two** benefits of using CAM to manufacture a number of motifs. [4]

Benefit 1:

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Benefit 2:

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(c) The motif is part of an innovative new textile product. The designer has applied for a 'Design Right'. Explain what is meant by a 'Design Right' and describe how it protects the designer's work. [5]

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5. Fibres are the raw materials of textiles, each with specific properties depending on its structure and source.

(a) A wool fibre is both hydrophilic and hydrophobic. Using notes and sketches explain how the structure of wool fibre allows for both of these properties. [5]

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(b) When fibres are spun into yarn describe the effect the twist has on the finished yarn. [3]

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6. As consumers make more discerning ethical choices about the products they buy, manufacturers are looking into alternative sources of natural fibre. Bamboo is increasingly seen as a viable alternative to cotton.

(a) Bamboo has been used to make the base layer top and leggings shown below. Explain why bamboo is a suitable choice for the active wear clothing. [4]



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(b) Justify why bamboo is considered better for the environment than cotton. [4]

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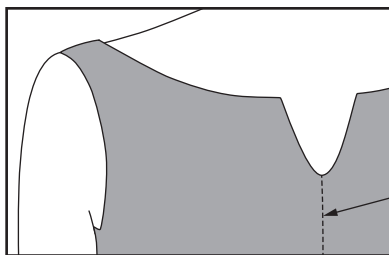
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7. The picture below shows a special occasion dress made from Duchess satin.



(a) The shaped part of the neckline has been finished so that no raw edges are visible.

Using notes and sketches explain how you would construct and apply a facing to the edge of the neckline shown below. (*The neckline is in two parts, with a CF seam – show one side only.*) [4]



Centre Front
(CF) seam

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(b) Explain why the designer has chosen to add a lining to the special occasion dress. [4]

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(c) The skirt of the dress is circular. Describe a suitable method of finishing the hemline. Include all appropriate tolerances and quality control considerations. [4]

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8. There are a number of development stages that the latest fashion trends go through before they appear in high street stores.

(a) Describe the role of fashion forecasters in the commercial development of fashion products. [4]

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(b) Bespoke clothing carries a higher price tag than ready-to-wear clothing. Discuss this statement and justify the additional cost to the customer. [8]

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Examiner
only

9. All furnishing materials must comply with a range of standards and regulations before being considered suitable for use in textile products.

Evaluate the role of the British Standards Institute (BSI) in the commercial sector of the textile industry. [8]

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