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| Surname | Centre Number | Candidate Number |
| First name(s) | | 2 |



GCE A LEVEL

1602U30-1



WEDNESDAY, 7 JUNE 2023 – AFTERNOON

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. Do not use gel pen or correction fluid.

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.

If you run out of space, use the continuation page(s) 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. Fashion designers use different techniques to model and refine their ideas in the development of clothing.

(a) Explain what a designer might gain from draping their fabric on a dressmaker's dummy in the early stages of design as shown in the picture below. [3]



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(b) Reverse engineering refers to the deconstruction of products and fabrics.

(i) Describe one detailed reason for deconstructing a piece of fabric. [2]

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(ii) Explain why a designer might use reverse engineering in the development of a product. [3]

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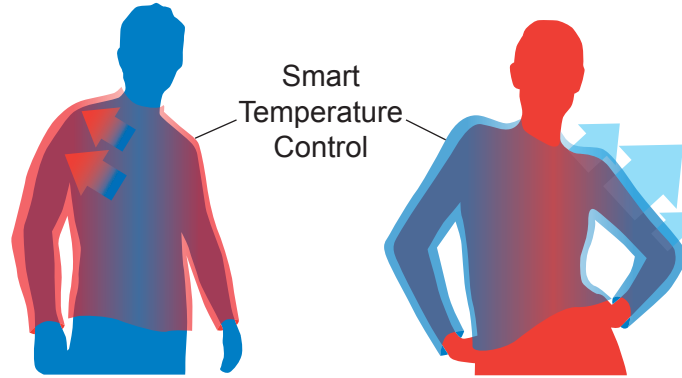
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2. Smart fabrics offer many design possibilities for designers.

(a) Thermoregulation in textile fabrics is triggered by changes in body temperature – smart temperature control.



Outline the benefits of wearing clothes that have smart temperature control. [4]

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(b) Explain what is meant by micro-encapsulation. Include **one** example of its use in textiles and the benefit it gives to the user in your answer. [4]

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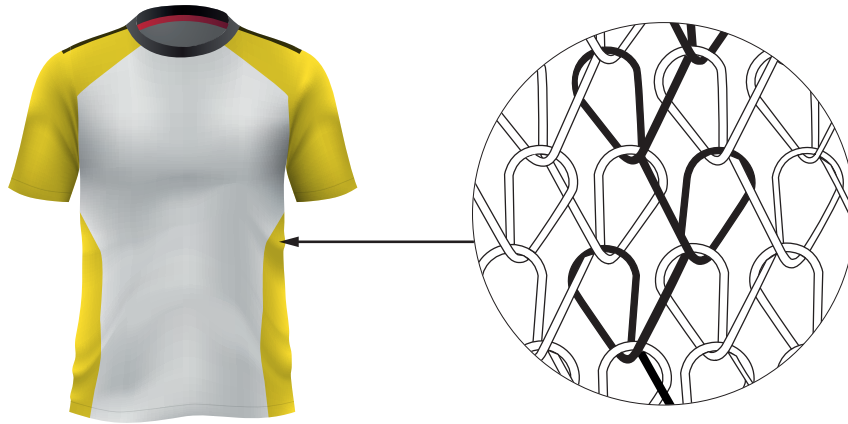
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3. Study the pictures below of a sports top and the type of knitted construction method used for the fabric.



- (a) Explain why this type of knitted fabric can be cut into panels to make the sports top. [4]

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- (b) The fabric for the sports top also contains elastane. Using notes and sketches explain how elastane is used in the construction of the yarn for the knitted fabric. [3]

(c) Discuss the benefits to the user of wearing clothes that contain elastane during sporting activities. [5]

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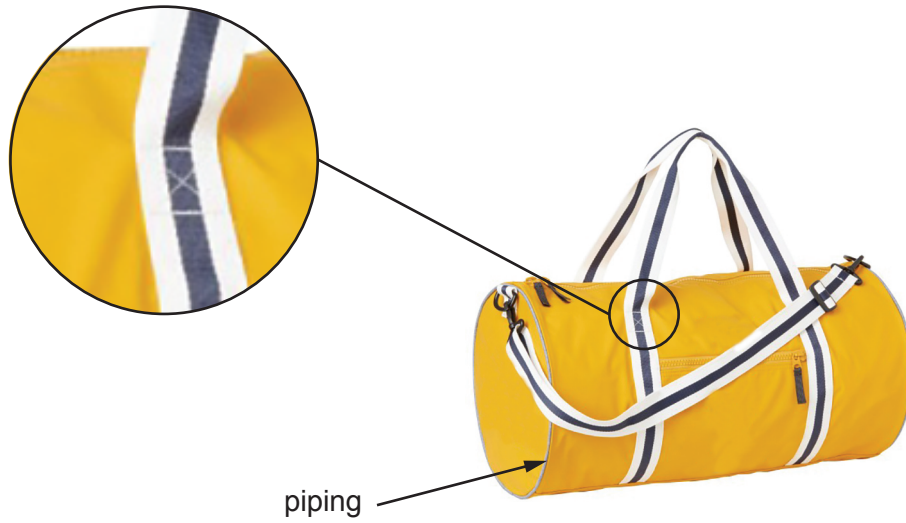
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4. The picture below shows a lightweight travel beach bag.



(a) The fabric for the beach bag is polyester cotton with a water-resistant finish. Explain how this finish is applied and why it would support the beach bag's function. [3]

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(b) (i) Justify the use of piping in supporting the structural integrity of the beach bag. [3]

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(ii) Explain the significance of the stitching detail used on the handle of the beach bag highlighted in the picture. [2]

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(c) All the internal seams of the beach bag have a bound finish. Using notes and sketches, explain how this process is constructed and include a reason for its application. [4]

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5. Top fashion designers promote their new collections by staging fashion shows like the one pictured below.



- (a) Explain how this type of fashion show influences mainstream contemporary fashion. [3]

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- (b) Explain the importance of market segmentation in the promotion of fashion and textile products. [5]

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6. Designers take inspiration from the world around them including the use of new technology.

(a) The shoe shown below has been 3D printed. Explain how technology has influenced this design. [4]



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(b) Explain how Japanese tradition and culture has influenced the work of designer Issey Miyake. [4]

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7. The picture below shows a stage of dyeing fabric in an industrial setting.



(a) Employers are required by law to ensure the safety of their employees. Explain what is meant by a hazard in the workplace. [2]

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(b) In the textile industry where fabrics are being dyed explain how COSHH protects employees. [4]

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(c) Discuss how the Health and Safety at Work Act applies to school or college students studying Fashion and Textiles. [6]

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