

Surname	Centre Number	Candidate Number
Other Names		2



**GCE AS/A LEVEL – NEW**

2602U10-1



**DESIGN AND TECHNOLOGY – AS unit 1**  
**Fashion and Textiles**

MONDAY, 14 MAY 2018 – AFTERNOON

2 hours

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	8	
2.	8	
3.	8	
4.	8	
5.	8	
6.	40	
<b>Total</b>	<b>80</b>	

**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 80.

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 5.

Answer **all** questions.

- 1. Advances in computer aided design and computer aided manufacturing (CAD/CAM) such as 3D printing, have enabled many designers to create visual effects with their designs that otherwise could not have been realised.

The textile products shown below have been modelled using a 3D printer.



- (a) Explain **one** benefit of using a 3D printer to model ideas when making products like the ones shown. [2]

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- (b) 3D images can be generated on screen, using CAD/ICT. Describe **one** advantage of modelling ideas in this way. [2]

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- (c) Manufacturers regularly use laser cutters to support the manufacturing of textile products like the one shown below.



Discuss the advantages and disadvantages of using a laser cutter to the manufacturer. [4]

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2. Designers use anthropometric and ergonomic data to ensure that a product is comfortable and safe for use.

(a) Explain how anthropometric data is used when designing a textile product. [2]

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(b) Describe in detail the importance of ergonomics when designing a baby carrier like the one pictured below. [6]



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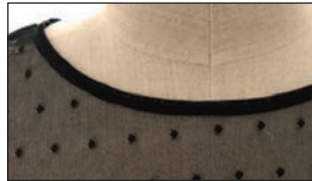
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3. The designer sheer top shown below is made from silk organza. French seams have been used in the construction of the top.



**Product details:**

- 100% silk organza
- £80
- Double frill detail on sleeves
- Frill detail on front and back
- French seams
- Binding on the neckline and hem

(a) Explain why a French seam would be the most suitable seam to use for the top. [2]

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(b) The designer top above retails at £80. Discuss the ways in which the designer could reduce the overall cost of the top. [6]

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- 4. Non-woven bonded fabrics like the one shown below are widely used in the home, healthcare and in industry.



Evaluate the use of non-woven bonded fabrics in disposable products in a wide range of situations. [8]

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- 5. The denim jean is one of the most iconic fashion pieces in history. In the last few years designers have been focused on producing fashionable jeans which are also friendly to the environment.

Describe the ethical and sustainable factors that designers and manufacturers should consider when producing a new pair of jeans. [8]

*Marks will be awarded for the content of the answer and the quality of written communication.*

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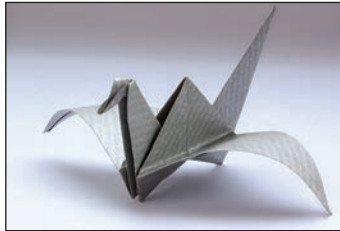
6. Design brief

Issey Miyake is a very successful fashion designer who is known for his technology-driven clothing and products.

A bag from the Bao Bao Autumn Winter 2017 collection is pictured below. Angular lines inspired by architecture, origami and vivid colours typify this collection.



Bao Bao bag



Origami bird



Architectural building

Design a wearable **outfit** for a young man or woman based on the Issey Miyake Bao Bao collection for an occasion of your choice.

- (a) Write a detailed and justified **four** point specification based on the brief that you have been given. [8]

State the occasion: .....

Point 1:

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Justification:

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Point 2:

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Justification:

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Point 3:

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Justification:

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Point 4:

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Justification:

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(b) Sketch your wearable outfit for a young man or woman in the space provided below.

Examiner  
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**Marks will be awarded for:**

- (i) An outfit which reflects the Bao Bao collection. [2]
- (ii) The creativity and originality of your idea. [2]
- (iii) Quality of communication. [2]
- (iv) Labelling a minimum of **two** suitable materials. [2]

- (c) Using notes and sketches produce a manufacturing specification drawing for your outfit in the space below.

Examiner  
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**Marks will be awarded for:**

- (i) A technical/line drawing of the front and back of the outfit. [4]
- (ii) Labelling of construction and style details. [4]

- (d) Using notes and diagrams explain in detail how you would construct **one** of the style details from your design. [8]

Examiner  
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(e) Issey Miyake's 'Pleats Please' collection is made from 100% polyester. Outfits from the collection are shown below.



Analyse the use of polyester as a suitable material for creating the pleats and making the collection easy to care for. [8]

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