GCE A LEVEL

A601U10-1

O20-A601U10-1

MONDAY, 12 OCTOBER 2020 – MORNING

DESIGN AND TECHNOLOGY – A level component 1
Fashion and Textiles

3 hours

A601U101
01

ADDITIONAL MATERIALS

In addition to this paper you will need:
a WJEC pink 16-page answer booklet, a calculator, ruler, pencil and coloured pencils.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Answer **all** questions.
Write your answers in the separate answer booklet provided.

INFORMATION FOR CANDIDATES

When and where appropriate, answers should be amplified and illustrated with sketches and/or diagrams.
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 number of marks available is 100.
You are reminded of the need for good English and orderly, clear presentation in your answers.
You may use a calculator in this examination.

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Answer **all** *questions.*

1. Madeleine Vionnet was considered a revolutionary designer in the early 1900s and is credited with being the creator of the bias cut dress shown below.



(a) Explain what is meant by the term 'bias cut'. [2]

(b) Describe how fashion history influences designers and what effect the bias cutting technique has on contemporary clothing. [6]

2. The tent below has been made from a closely woven nylon fabric.



Tent dimensions

Width of base: 1.30 m

Length of base: 3.5 m

Height (highest point): 1.75 m

(a) Explain why a closely woven nylon fabric is suitable for the tent. [4]

(b) The internal seams used to construct the tent are either double stitched or bound. Explain why both these construction methods are suitable for the tent. [4]

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(c) The tent is no longer waterproof and needs reproofing. This can be achieved by using a waterproofing spray like the one shown opposite.

- One can will cover an area of 2.5 m^2.



Calculate how many cans will be needed to proof the whole tent. [9]

Do not include the ground sheet base in your calculations but you may round your calculations to two decimal points.

You must show all your workings.

3. The throw/blanket shown below has been woven using a fancy textured bouclé yarn spun from alpaca fibres.



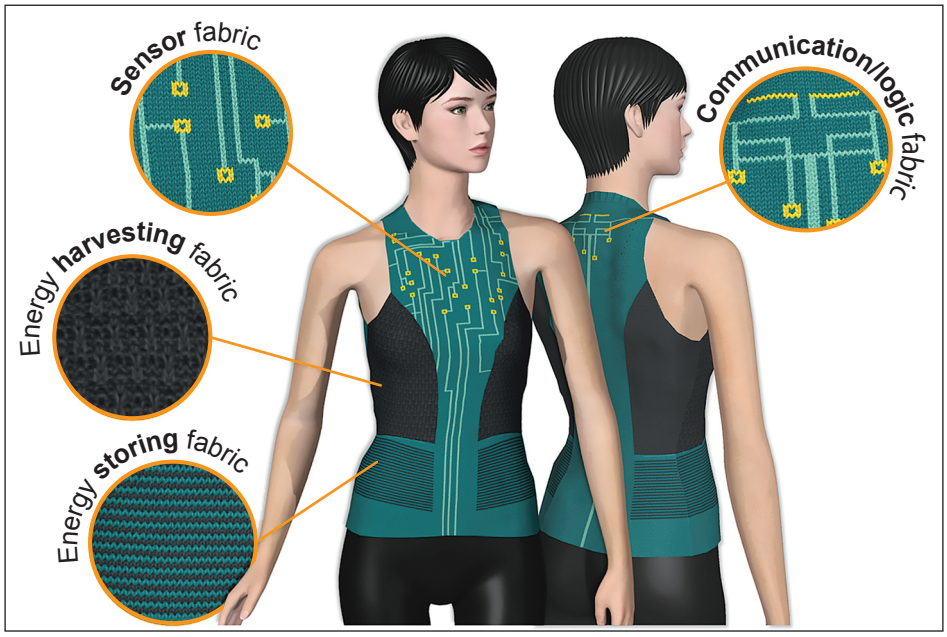
(a) Explain how texture can be added to create fancy yarns and why this would be beneficial when making products like the throw/blanket. [4]

(b) Describe the properties of the alpaca fibre that make it suitable for the throw/blanket. [4]

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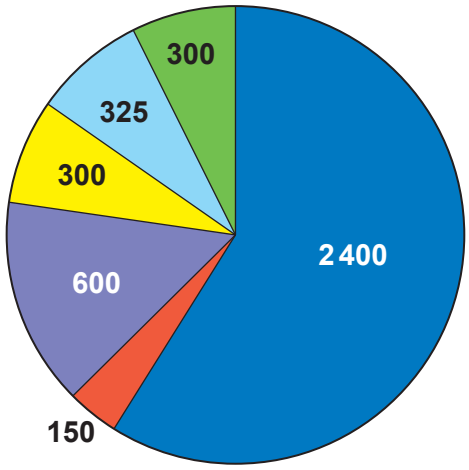
4. Personal electronics are advancing towards a point where multi-functionality and wearability are set to become one of the most important trends.

(a) With reference to the concept product shown below, explain how technology has advanced to facilitate this upcoming trend. [4]



(b) In 2018 wearable technology was worth £150 million of the total UK textile market share. The rise in demand for interactive multi-functional clothing is set to rise dramatically over the next few years and wearable technology is predicted to significantly increase its market share.

UK Textile Clothing Market Share for 2018
Values quoted represent millions of pounds (£)



Clothing
Wearable technology
Technical textiles
Medical textiles
Sports textiles
Military textiles

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(i) Calculate the value of wearable technology as a percentage (%) of the total UK textile clothing market share in 2018.

Present your answer to two decimal places. [2]
Show all your workings.

(ii) The value of the UK market is expected to rise by 35 % by 2025. The market share of wearable technology is predicted to rise to 23 % of the total market.

Calculate the value in pounds (£) of wearable technology in 2025. [4]
Show all your workings.

5. Tucks and pleats are often used by fashion and textile designers to shape products such as the skirt shown below.



(a) Using notes and sketches explain how you would construct a series of equally-sized pleats in the top of a skirt like the one shown. [5]

(b) Explain why 100 % polyester would be a suitable fabric for a permanently pleated skirt. [5]

6. Many fashion and textile manufacturers operate a just-in-time (JIT) system for stock control.

Discuss the advantages and disadvantages of operating a JIT system within the clothing and textile manufacturing industry. [5]

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7. Modelling and testing of ideas is an important part of the iterative process of developing fashionable clothing products.

(a) Evaluate the importance of modelling and testing ideas through the production of toiles in fashion design. [6]

(b) Analyse the impact 3D printers are having on the development of fashion products. [6]

8. Environmental issues continue to be at the centre of discussion in the fashion and textile industry, particularly with reference to management of resources and disposal of waste.

Analyse the impact the philosophy of the circular economy would have on the environment if more designers and manufacturers adopted this approach. [9]

9. The aim of fashion designers and manufacturers is to sell their products to consumers.

Discuss the methods a designer and manufacturer might use to promote a new fashion product to ensure its success. [9]

10. Fashion and textile products should be fit for purpose and be used or worn comfortably.

With reference to named examples, evaluate the use of ergonomic and anthropometric data in the development of fashion and textile products. [12]

END OF PAPER

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