GCE A LEVEL

A601U10-1

Z22-A601U10-1

THURSDAY, 9 JUNE 2022 – AFTERNOON

DESIGN AND TECHNOLOGY – A level component 1

Fashion and Textiles

3 hours

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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. Do not use gel pen or correction fluid.

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. A brushed cotton material has been used to make the child's pyjamas shown below.





(a) Explain how a brushed cotton material improves the functionality of the child's pyjamas. [4]

(b) Piping and interfacing have been used in the construction of the pyjama collar.

Explain the function of both in the construction of the collar. [4]

2. The fashionable top pictured below features a bell sleeve.

The lower part of the sleeve or 'bell' is cut from a circular piece of fabric.



(a) Using notes and sketches, explain how you would attach the bell section to the rest of the sleeve. [4]

(b) The designer wishes to add a narrow lace edge to the lower edge of the bell sleeves.

Calculate the length of trim needed for the top, using the measurements listed below:

- The depth of the 'bell' section is 24 cm.
- The width of the hem of the upper section is 34 cm. [7]

Note: Do not include seam allowances.

You must show all your workings.
Round your calculations to a whole number.

(c) The fashionable top has been made from a polyester cotton blend. Explain the advantages of using this blended fabric for the top. [4]

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3. The arm warmers shown below, are used by cyclists who consider them a useful addition to their all-weather cycling gear.



Product details:

- Made from knitted tubes of polyester or nylon microfibre.
- Silicone gripper bands on the inner bicep area.

(a) Cyclists often encounter variable weather conditions whilst out on a cycle ride. Explain how the arm warmers would support their needs whilst out cycling. [4]

(b) Explain how the named materials and components support the product's function. [4]

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4. The designer dress shown below features laser cut details on the skirt and sleeves.



(a) Each flower on the skirt is 11 cm in diameter and has been cut on a laser cutter which has a cutting area of 700 mm by 500 mm.

Calculate how many flowers can be cut from a one-metre length of fabric that is 150 cm wide. [6]

Note: Flowers can be placed side by side with minimal spacing between them.
Show all your workings.

(b) The flowers are sewn side by side across the straight skirt which has a circumference of 143 cm. There are 7 rows of flowers on the skirt.

Calculate the number of flowers needed for the skirt of the designer dress. [2]
Show all your workings.

(c) Justify the use of a laser cutter to create the flower details on the skirt and scalloped edge on the sleeves of the designer dress. [4]

5. Hemp is a sustainable fibre with similar qualities and properties to cotton.

(a) Outline the environmental advantages of growing hemp crops compared to cotton crops. [5]

(b) Explain why hemp is a suitable fibre for use in summer clothing. [5]

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6. Morphological analysis is a design strategy used in the development of new products.

Describe the principles of morphological analysis and explain how it could be used to develop a new fashionable raincoat. [5]

7. As a consequence of the recent pandemic, many leading fashion designers showcased their Spring 2021 collections as virtual reality (VR) shows. Many believe VR is the way forward for fashion.

(a) Leanne Elliott-Young, co-founder of the London based agency, Institute of Digital Fashion, was quoted as saying 'There are a lot of similarities between a digital atelier and a couture one. We replicate seams and cuts so the clothes move in tune with the body, as materials would IRL (In Real Life).'

With reference to the quote above, evaluate the use of virtual reality over real life when launching a new fashion collection. [6]

(b) Analyse the benefits for people and the environment of launching a new collection through virtual reality. [6]

8. The success of a new product depends on the careful selection of appropriate fabrics.

Analyse how fabric type and scale of manufacture influence the choices a designer makes when selecting fabrics for a new product. [9]

9. Intellectual property allows designers to protect their work.

Explain how the use of a design right differs from the use of a trademark when applied to fashion and textile products. [9]

10. In bespoke fashion design, shape and fit are critical features of a made-to-measure outfit that is both stylish and comfortable to wear.

Evaluate the use of princess line seams and darts when used to shape and style a bespoke tailored outfit or close-fitting evening wear. [12]

END OF PAPER

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