



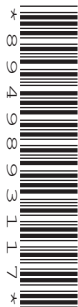
Oxford Cambridge and RSA

# Monday 20 June 2022 – Morning

## A Level in Design and Technology: Fashion and Textiles

### H405/02 Problem Solving in Fashion and Textiles

Time allowed: 1 hour 45 minutes



**You must have:**

- the Resource Booklet

**You can use:**

- a ruler (cm/mm)
- a scientific calculator
- geometrical instruments



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

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Last name

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### INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. You can use extra paper if you need to, but you must clearly show your candidate number, the centre number and the question numbers.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for a correct method, even if your answer is wrong.
- Each question tells you which part of the Resource Booklet to refer to.

### INFORMATION

- The total mark for this paper is **70**.
- The marks for each question are shown in brackets [ ].
- Quality of extended response will be assessed in questions marked with an asterisk (\*).
- This document has **16** pages.

### ADVICE

- Read each question carefully before you start your answer.

Answer **all** the questions.

Before responding to the questions in this paper you **must** spend time reading and familiarising yourself with the Resource Booklet.

- 1\* There are a wide range of nightwear products available on the market to meet the requirements of different genders and age groups.

Critically examine how the popular unisex pyjama design shown in **Fig. 3** of the Resource Booklet could meet user requirements when purchasing nightwear for optimum sleep.

Refer to information on **page 2** and **page 3** of the Resource Booklet, specifically **Fig. 2** and **Fig. 3**.  
[12]

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- 2 'Forty Winks' has decided to update its classic pyjama top to reflect popular forecast trends as shown in **Fig. 4** of the Resource Booklet.

**Fig. 5** of the Resource Booklet shows how the design team has incorporated a frill and larger sleeve aesthetic into the pyjama top.

The pattern development department has been asked to modify the original sleeve pattern to reflect the proposed new design.

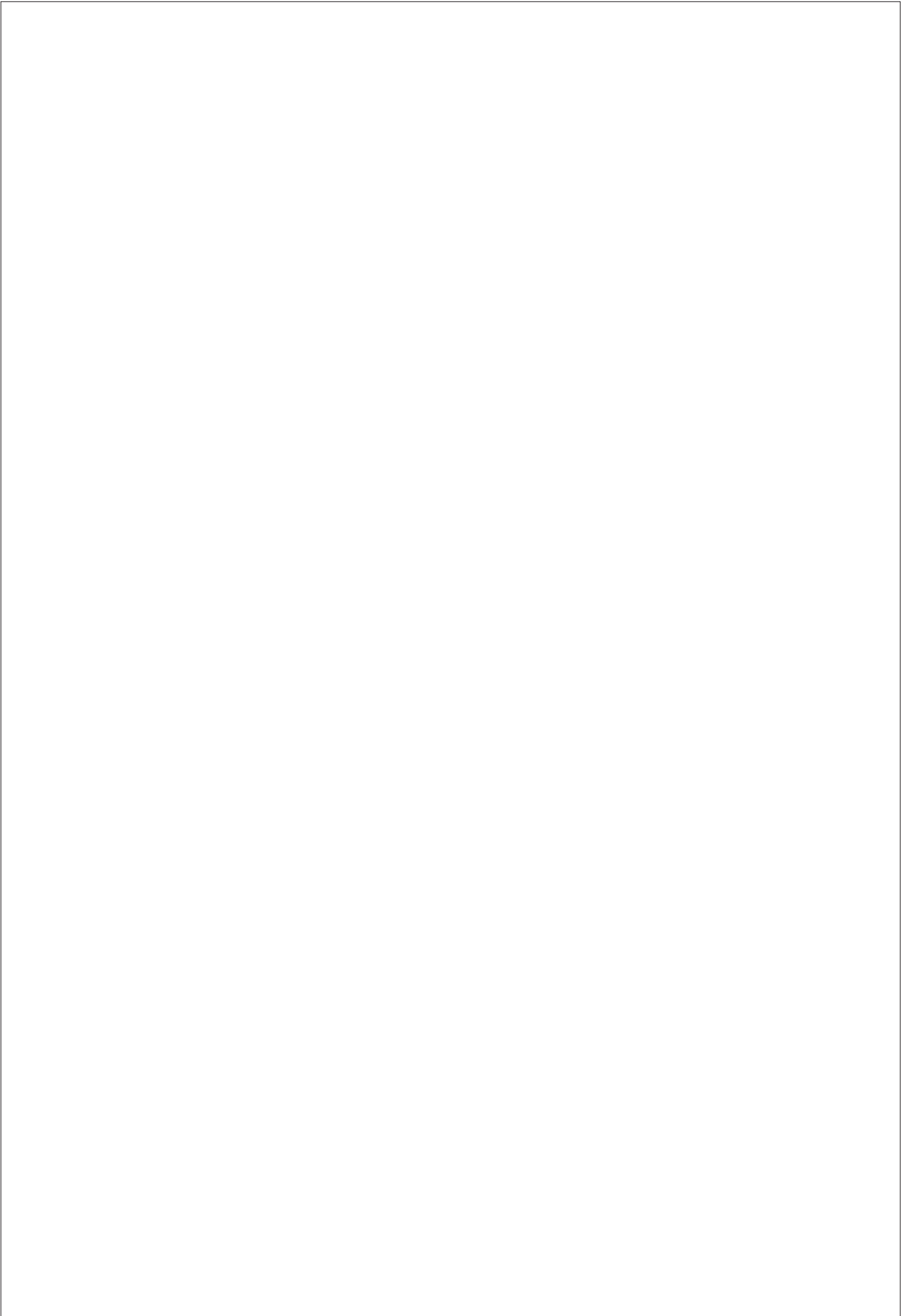
Use sketches and/or notes to show how this modification would be carried out.

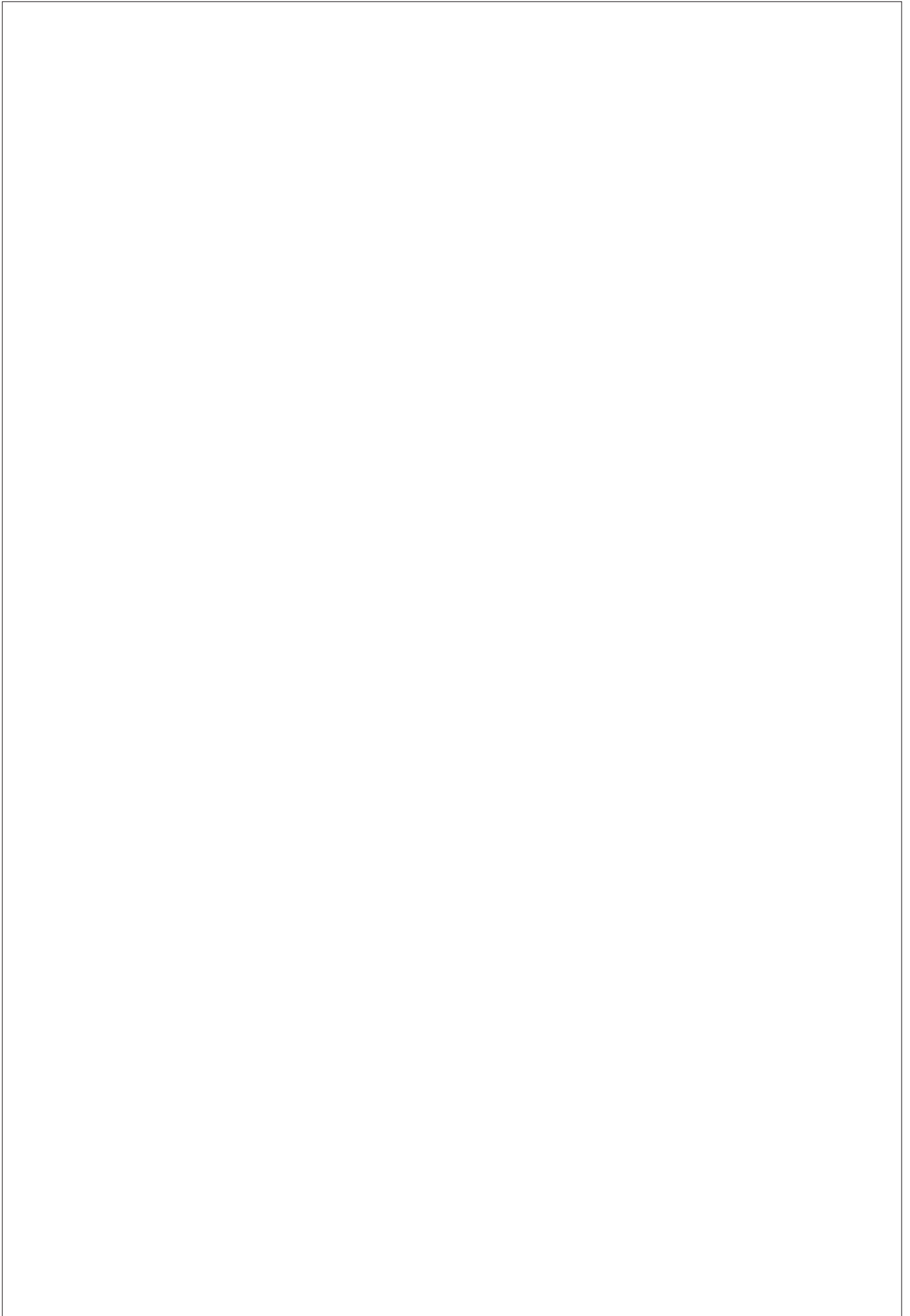
In your answer you **must** include references to the following:

- diagrams to show pattern development
- manufacturing processes that would be involved in the modification.

Refer to information on **page 4** of the Resource Booklet, specifically **Fig. 5**.

**[16]**





- 3\* **Fig. 6** of the Resource Booklet shows a range of fabrics that have been selected by the design team at Forty Winks that are considered suitable for the modified pyjama design.

Discuss the suitability of the listed fabrics for the modified pyjama design.

In your answer you **must** include references to the following:

- fabric properties and characteristics
- fitness for purpose
- manufacturing constraints
- cost considerations.

Refer to information on **page 5** of the Resource Booklet, specifically **Fig. 6**.

[12]

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- 4 Forty Winks has carried out research and recognised the rising popularity of nightwear being incorporated into daywear. The design team has developed the classic pyjama style to meet this trend and make it more suitable for daywear as shown in **Fig. 7** of the Resource Booklet.

The new trousers have been adapted to include:

- front diagonal trouser pockets
- front darts
- piping.

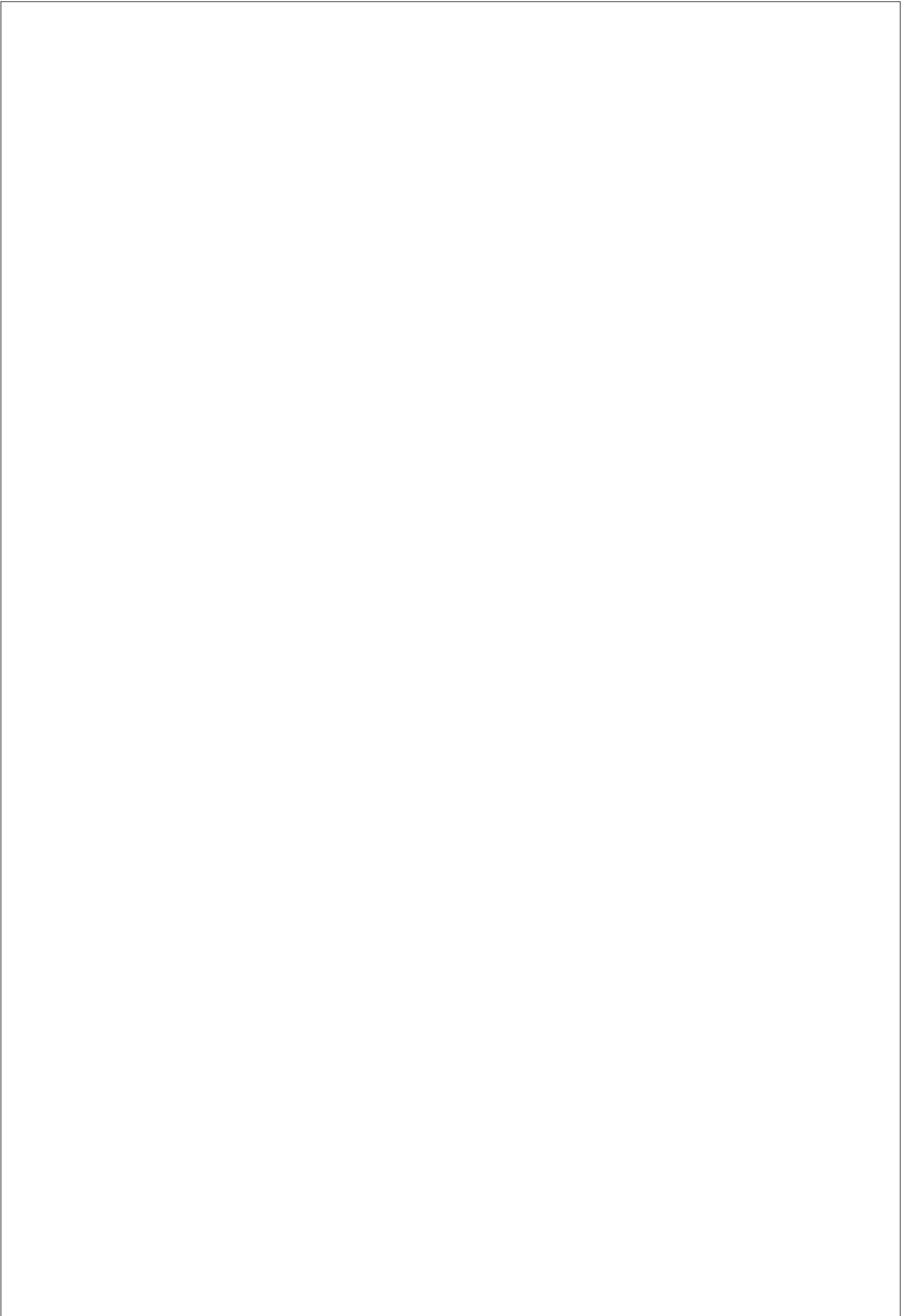
Use sketches and/or notes to show suitable methods of assembly for the new trousers.

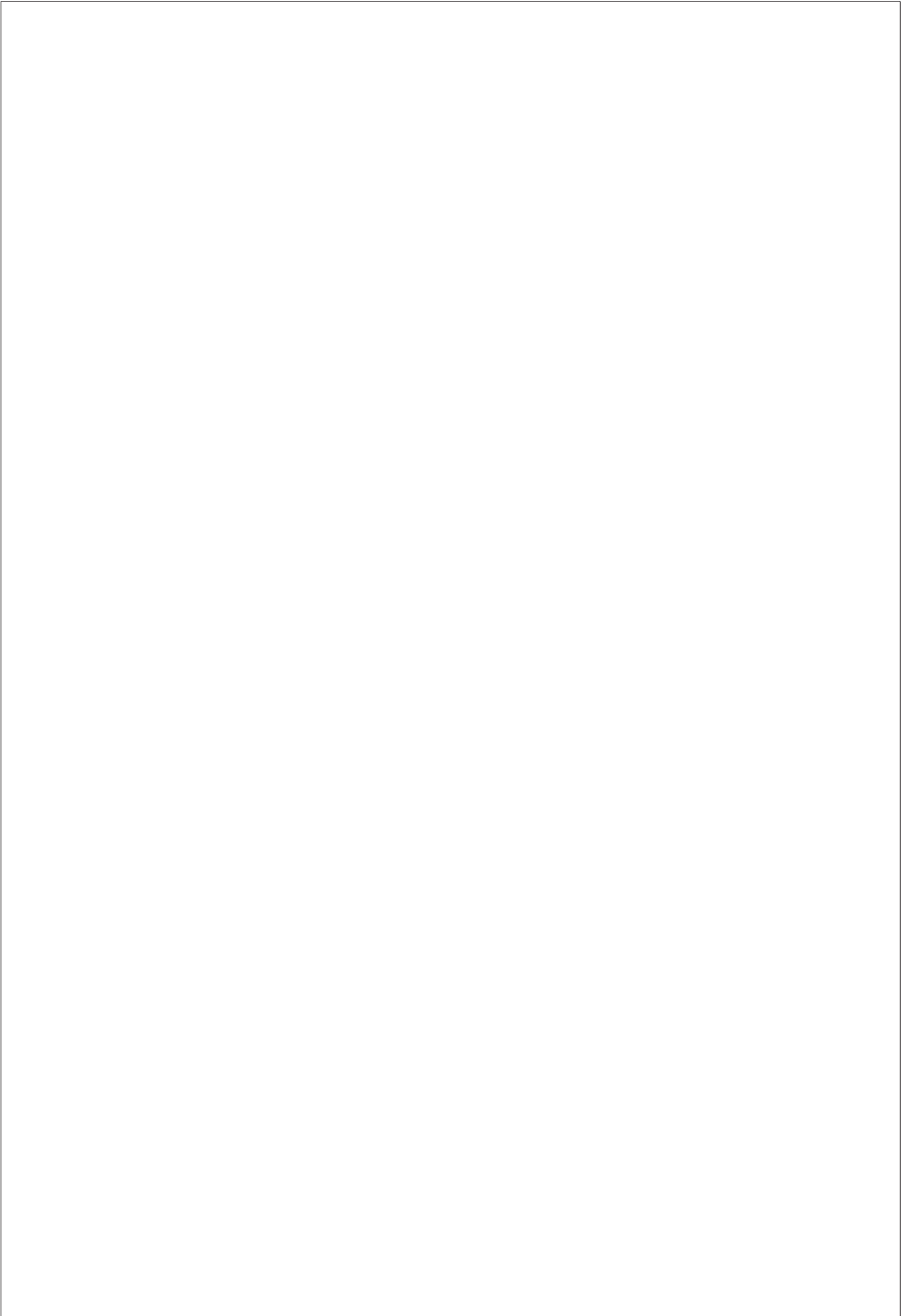
In your answer you **must** include references to the following:

- construction techniques
- tools and equipment
- finishing.

Refer to information on **page 6** of the Resource Booklet, specifically **Fig. 7**.

**[16]**





- 5 (a) (i) Forty Winks has recently conducted a marketing campaign on social media to gather feedback on whether potential customers would be willing to pay a little extra to receive the new daytime pyjamas in a presentation box rather than a sealed plastic bag.

Use the information on **page 7** of the Resource Booklet to calculate the relative demand for the presentation box compared to the number of people who would not pay for the presentation box. Give your answer as a percentage and show your working. **[3]**

Relative demand ..... %

- (ii) Use your answer from **part (a)(i)** and the information on **page 7** of the Resource Booklet to state whether Forty Winks could implement the concept of the presentation box. Justify your answer.

.....  
 ..... **[1]**

- (b) The tissue paper to be used for the presentation box is available in rolls that are 40 cm wide. It will be used to line the inside of the presentation box, cover the garments and overlap by 8 cm.

Use the information on **page 7** of the Resource Booklet to calculate the length required for the tissue paper. Give your answer in cm and show your working. **[2]**

Length required for tissue paper ..... cm

- 6 The design team at Forty Winks has decided the product launch of its new daytime pyjama design will be Spring 2023.

Critically examine the ways in which the design team could apply project management approaches to create and prepare the design for this launch event in order to improve efficiency and reduce costs.

Refer to information on **page 8** of the Resource Booklet.

[8]

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**END OF QUESTION PAPER**

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