



HIGHER SCHOOL CERTIFICATE EXAMINATION

1996

TEXTILES AND DESIGN

2/3 UNIT (COMMON)

*Time allowed —Three hours
(Plus 5 minutes' reading time)*

DIRECTIONS TO CANDIDATES

- This paper is divided into THREE Sections.
- Attempt FOUR questions, AT LEAST ONE question from each Section.
The FOURTH question may be chosen from ANY Section.
- All questions are of equal value.
- Answer each question in a *separate* Writing Booklet.
- Pages 9 and 10 contain outlines, which may be used as a guide when answering questions.
Do NOT hand in these sheets with the Writing Booklets.
- You may ask for extra Writing Booklets if you need them.

SECTION I—SCIENCE AND TECHNOLOGY**QUESTION 1. Dyeing and Printing**

- (a) Select TWO classes of dyestuff suitable for dyeing EACH of the following:
- (i) cotton;
 - (ii) nylon.
- (b) Describe the forces of attraction between the dyestuffs and fibres in part (a).
- (c) Name appropriate colourfast dyestuffs suitable for dyeing a cotton/nylon blend fabric. Explain the processes used to dye this fabric.

QUESTION 2. Finishing

Choose FOUR of the following fabric finishing processes:

- sanforising
- brushing
- decatizing
- antistatic
- Scotchgard.

For EACH of your choices:

- (a) describe the finishing process, and explain how it achieves the desired result;
- (b) name a fibre and a fabric type that will benefit from the finishing process;
- (c) identify a textile product that will benefit from the finishing process, and explain the benefit(s).

QUESTION 3. Properties and Performance of Textiles

Many of the properties attributed to a textile article are determined by the fibre and the fabric structure used in its construction.

- (a) Explain the effect of the fibre(s) and the fabric structure on the desired properties for **THREE** of the following:
- (i) a leotard (cotton/elastomeric);
 - (ii) a pair of gloves (acrylic);
 - (iii) a roof insulation batt (fibreglass);
 - (iv) a handkerchief (cotton).
- (b) For the **THREE** textile articles chosen above, suggest alternative fibre(s) for **EACH**, and give reasons for your choices.

QUESTION 4. Properties and Performance of Textiles

The construction of a sleeping-bag consists of three layers: the external cover, the insulation, and the internal lining.

- (a) For **EACH** of the **THREE** layers:
- (i) state the functional properties required;
 - (ii) name the fibre(s) that could be used to achieve these properties, and justify your choice(s);
 - (iii) sketch and label an appropriate fabric structure that could be used.
- (b) Name **TWO** appropriate finishes that could be applied to the external cover.

SECTION II—TEXTILES AND SOCIETY**QUESTION 5. Culture and Textiles***EITHER*

- (a) Cultures, past and present, have textile items that reflect their customs, beliefs, and values.
- (i) Identify TWO cultures:
- one traditional
 - one contemporary or subculture,
- and select ONE textile item from each culture.
- (ii) Sketch and label your textile items.
- (iii) Compare the methods of production of the textile items.
- (iv) State how EACH textile item promotes the customs, beliefs, and values of that culture.

OR

- (b) With reference to a variety of cultures, and the human body, discuss how textiles may be used to achieve:
- modesty
 - protection
 - adornment.

QUESTION 6. History of the Textile Industry*EITHER*

- (a) Technological developments in the textile industry during the twentieth century have influenced both the worker and the consumer.

Discuss this statement with reference to:

- (i) the worker:

- employment opportunities
- training and development
- working conditions;

- (ii) the consumer:

- wider choice of products
- quality control
- textile labelling.

OR

- (b) Choose THREE of the following technologies:

- dyeing
- printing
- knitting
- weaving
- spinning
- garment manufacture.

For each of your choices:

- (i) name and describe ONE major innovation that occurred before the twentieth century;
- (ii) discuss how the quality and availability of textiles were affected by the introduction of this innovation;
- (iii) name and describe a twentieth-century version of the innovation.

QUESTION 7. The Australian Textile Industry

EITHER

(a) Discuss the impact that computer technology has had in **THREE** of the following areas:

- fabric manufacture
- garment design
- marking and cutting
- garment manufacture
- garment surface decoration.

OR

(b) Changes in Australian society over the last two decades have affected the variety and consumption of textiles in Australia.

Discuss this statement with reference to **THREE** of the following:

- environmental issues
- sport and leisure
- marketing of textiles
- consumer buying practices
- government policies.

SECTION III—DESIGN

QUESTION 8

New fashion streetwear is often inspired by sportswear.

Select TWO of the following sports:

- surfing
- horse-riding
- skiing
- softball.

- (a) Sketch a conventional outfit for EACH sport selected.
- (b) Explain the functions of the fabrics used in the TWO conventional sporting outfits.
- (c) Using the TWO conventional outfits as inspiration, sketch and fully label THREE modified items for streetwear. Give reasons for the modifications.
- (d) Combine the THREE items from part (c) to create your final streetwear 'look'. Sketch and justify this 'look'.

QUESTION 9

A large shopping mall is about to open, and you are to design and supply textile items for sale in one of the specialty shops.

- (a) Identify the specialty shop, and list the textile items that you would expect to find in this shop.
- (b) From your list in part (a), select and design THREE different items. Sketch and fully label your items.
- (c) Outline the aesthetic qualities of your designs.
- (d) For ONE of your items, describe TWO processes that you could use in its manufacture.

QUESTION 10

Colour, proportion, and seam lines play an important part in how clothes can change the appearance of a person.

- (a) Design and sketch an outfit that uses colour to make a tall person look shorter.
- (b) Design and sketch an outfit that uses proportion to give emphasis to the upper part of the body.
- (c) Design and sketch an outfit that uses seam lines to make a slim person look wider.
- (d) Describe how colour, proportion, and seam lines have achieved the required effects in the above designs.

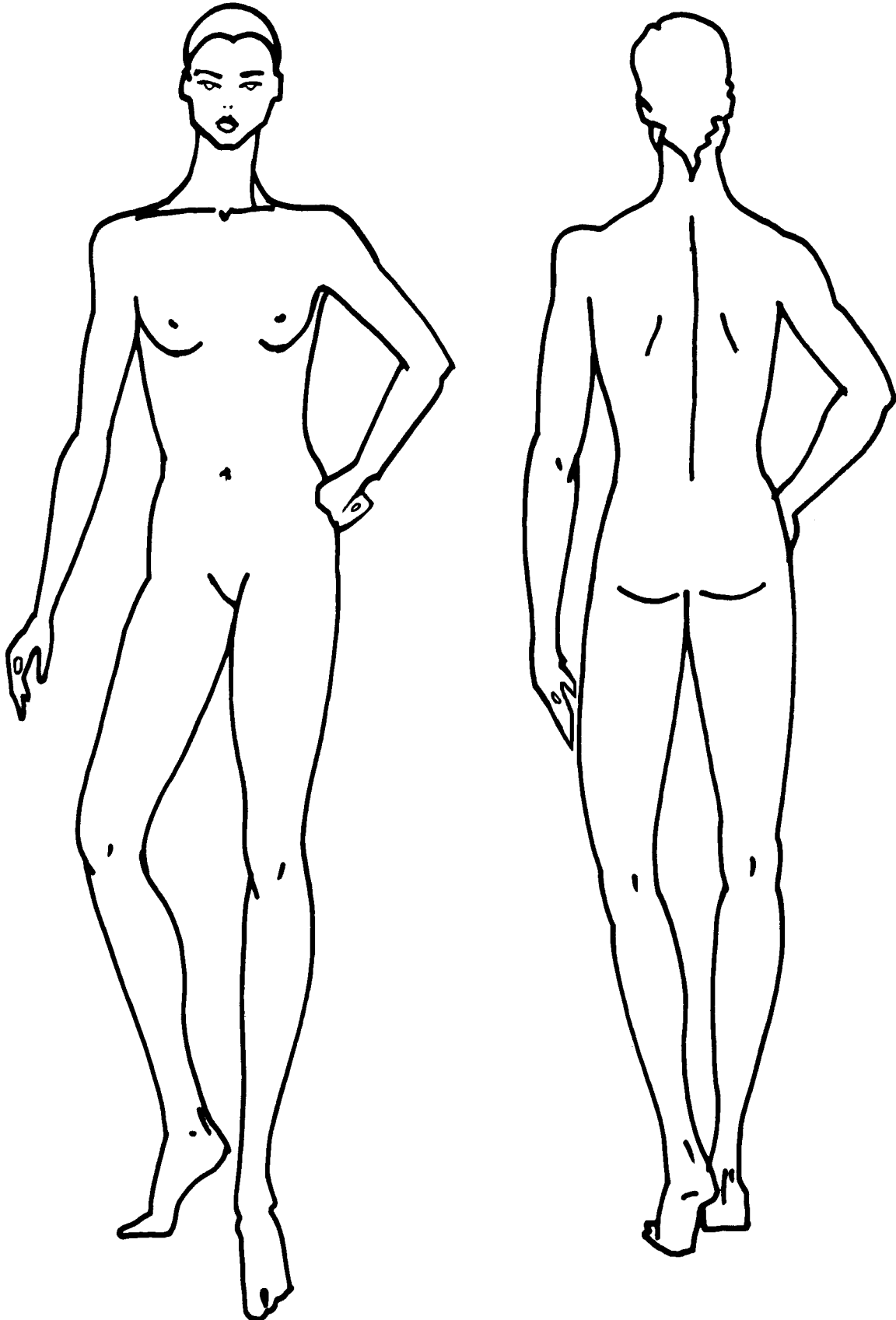
QUESTION 11

From a textile project you have completed:

- (a) state the original design brief, and outline the design situation;
- (b) sketch and fully label the original textile project, and include the technique(s) used;
- (c) using a design process, show how the original project ideas could be adapted to a new end-use item (illustrate your answer);
- (d) outline the manufacturing process(es) that could be used to mass-produce this new item.

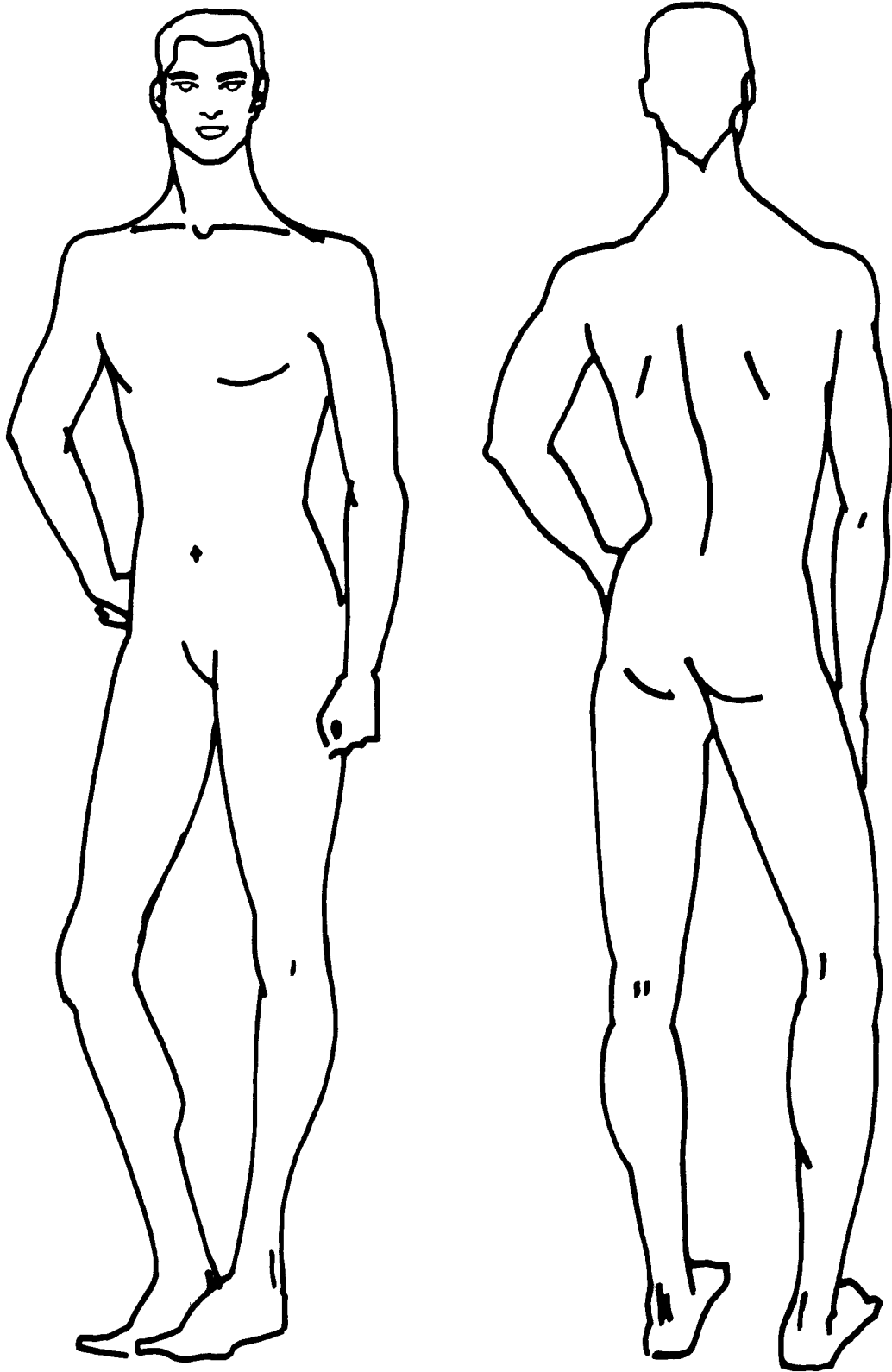
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