

**B O A R D O F S T U D I E S**  
NEW SOUTH WALES

**HIGHER SCHOOL CERTIFICATE EXAMINATION**

**1998**

# **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 8, 9 and 11 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**

Colouration is applied to textiles at different stages: fibre, yarn, fabric and garment.

Select ONE of the items listed below:

- polyester/cotton red and white shirt
- blue worsted coat.

- (a) Identify and describe in detail TWO appropriate colouration methods for the item chosen.
- (b) Identify suitable dye/pigments for each colouration method chosen. Justify your choice.
- (c) Describe how the consumer would maintain colour-fastness when caring for the selected item.

**QUESTION 2. Finishing**

Finishing enhances the performance of fabrics.

For EACH of the fabrics listed:

- silk taffeta
- plain weave linen
- 100% wool axminster
- outdoor canvas,

- (a) identify a suitable end-use.
- (b) name a suitable finish and justify your choice (each finish can be used only once).
- (c) describe how each finish identified in part (b) is applied to the fabric.

**QUESTION 3. Properties and Performance of Textiles**

- (a) With the aid of simple diagrams and/or appropriate graphical representation, briefly describe the structural differences between:
- (i) plain weave and satin weave fabrics;
  - (ii) single jersey and simple warp-knit fabrics;
  - (iii) needle-punched and melt-bonded non-woven fabrics.
- (b) For EACH of the fabric structures listed above, identify ONE suitable end-use.
- (c) Discuss how the properties of each of the fabric structures affect their end-use identified in part (b).

**QUESTION 4. Properties and Performance of Textiles**

To complete the furnishing of a child's nursery, the following textile articles need to be purchased:

- cot quilt cover
- sheet set
- curtains
- floor rug
- mosquito net
- mattress protector.

Choose THREE items from the list above and for EACH item:

- (a) list THREE performance criteria;
- (b) select and name a suitable fabric, describing fibre type and yarn structure, to meet your performance criteria. Justify your choices.

**SECTION II—TEXTILES AND SOCIETY**

All questions in Section II have TWO parts.

Answer EITHER Part (a) OR Part (b).

**QUESTION 5. Culture and Textiles**

EITHER

- (a) Textile art forms are a medium for the expression of a people's beliefs and environment, and a record of a culture's history and technological development.

Discuss this statement, using specific examples from MORE than ONE culture.

OR

- (b) Identify TWO cultures:

- one traditional
- one contemporary.

- (i) Select ONE textile item from each culture.

Draw and label each item.

- (ii) Discuss the influence of the following on EACH item identified in part (i).

- Resources available and technological development.
- Social significance and means of self-expression and communication.

- (iii) Compare the status of the textile 'worker' in each of the selected cultures.

**QUESTION 6. History of the Textile Industry**

EITHER

(a) With reference to TWO of the following:

- fibres
- yarns
- fabrics
- garments,

discuss how the technological developments from the Industrial Revolution to the present day have impacted on the:

- (i) variety of textile products;
- (ii) availability of textile products;
- (iii) quality of textile products.

OR

(b) With reference to developments in textile technology from the past and present, discuss the relationship between technology, changes in working conditions, and employment of the textile worker.

**QUESTION 7. The Australian Textile Industry**

EITHER

(a) Australians are heavy consumers of textiles but the Australian textile industry provides only a small proportion of the textile products used by Australian consumers.

Discuss this statement with reference to social, political, technological and economic factors.

OR

(b) All stages of textile production have an impact on the environment.

Discuss this statement with reference to EACH of the following sectors of the Australian textile industry:

- fibre production
- yarn production
- fabric production
- colouration and finishing
- garment manufacture
- recycling of clothing and fabrics.

## SECTION III—DESIGN

### QUESTION 8

Australia has many sporting teams that perform well at international level. These teams need to have a uniform to wear at promotional functions, including official dinners, formal presentations, press conferences and photo opportunities.

- (a) Nominate a team sport of your choice and outline the design criteria to be met by the uniform at these promotional functions.
- (b) Sketch and label in detail front and back views of the uniform, including colour and style features.
- (c) Suggest suitable fabrics and discuss how they meet the design criteria of the uniform.
- (d) Identify TWO tests that would be used in assessing the suitability of these fabrics for the uniform.

### QUESTION 9

The following fabrics have had an impact on fashion design over the last two decades:

- cotton stretch-knit jersey
- lycra/nylon knit
- woven Tencel
- woven hemp.

Select ONE of the fabrics above.

- (a) Explain, in terms of fibre and fabric properties, how the fabric chosen has impacted on garment design to meet new fashion requirements and lifestyle trends over the last twenty years.
- (b) Select an outfit suitable for the fabric chosen.
  - (i) Sketch and label front and back views of your outfit.
  - (ii) State the performance criteria for your outfit and justify why this fabric is suitable.
  - (iii) Describe TWO appropriate construction techniques suitable for assembling your outfit.
  - (iv) What features would you promote when marketing your outfit?

**QUESTION 10**

From a textile project you have worked on during Year 12:

- (a) state the original design brief and sketch the textile item, indicating fabric(s), colour(s) and construction technique(s);
- (b) describe in detail how you implemented the design process for your project;
- (c) select an alternative market for your design from:

EITHER

- a different age group

OR

- a different socio-economic group,

and describe how you would modify your original idea to better suit the alternative group;

- (d) sketch and fully label your modified design, indicating fabric(s), colour(s) and technique(s).

**QUESTION 11**

A private transport company is refurbishing the interior of a long-distance train. The train will include sleeper compartments and travel throughout the eastern states of Australia.

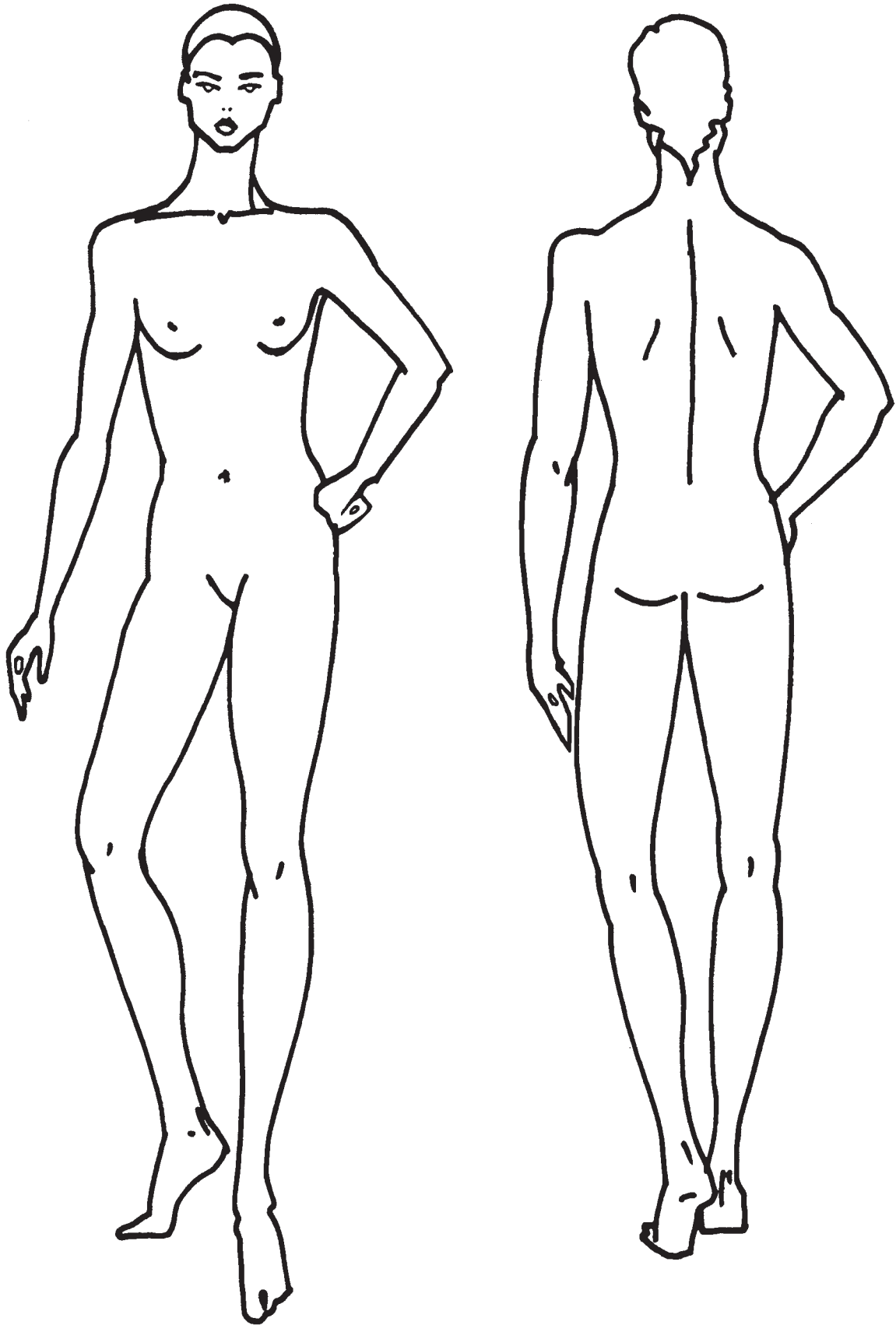
- (a) Select a colour scheme for the sleeper compartment and justify your choice.
- (b) Sketch TWO contrasting design motifs suitable for refurbishing the interior of the sleeper compartment and justify your choice.
- (c) Incorporate the motifs from part (b) and further develop them to be used on:
  - (i) a border pattern on a towel;
  - (ii) seating upholstery;
  - (iii) a repeat pattern for a sheet;
  - (iv) a graduated pattern for a blind.

Use scale drawings and indicate colours for each.

- (d) State a suitable technique for applying/incorporating the design to ONE of the items in part (c) and justify your choice of technique.

These outlines may be used for guidance when answering questions requiring clothing designs.

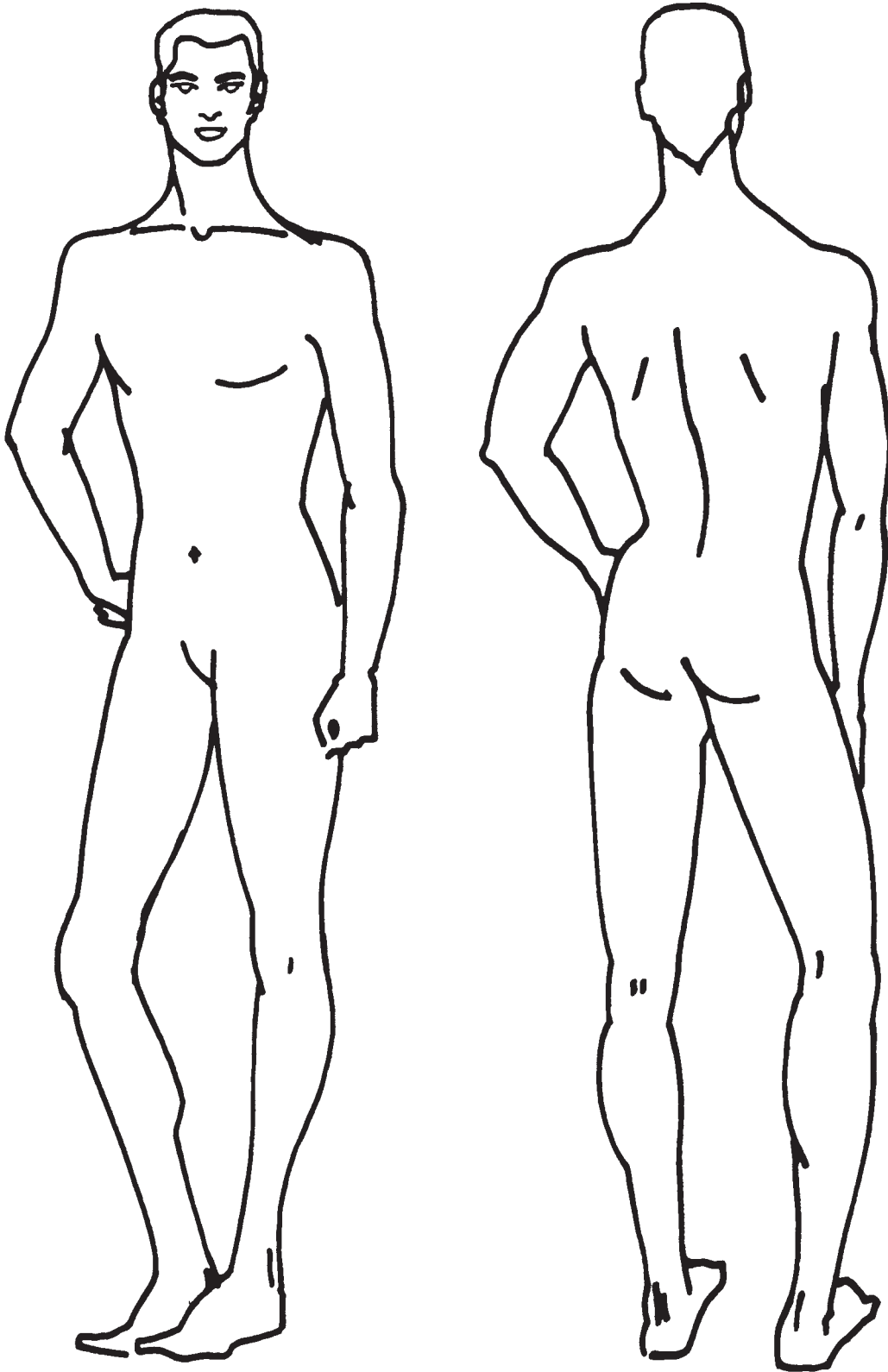
Use for tracing only. Do NOT sketch on this sheet. Do NOT hand it in with Writing Booklets.





These outlines may be used for guidance when answering questions requiring clothing designs.

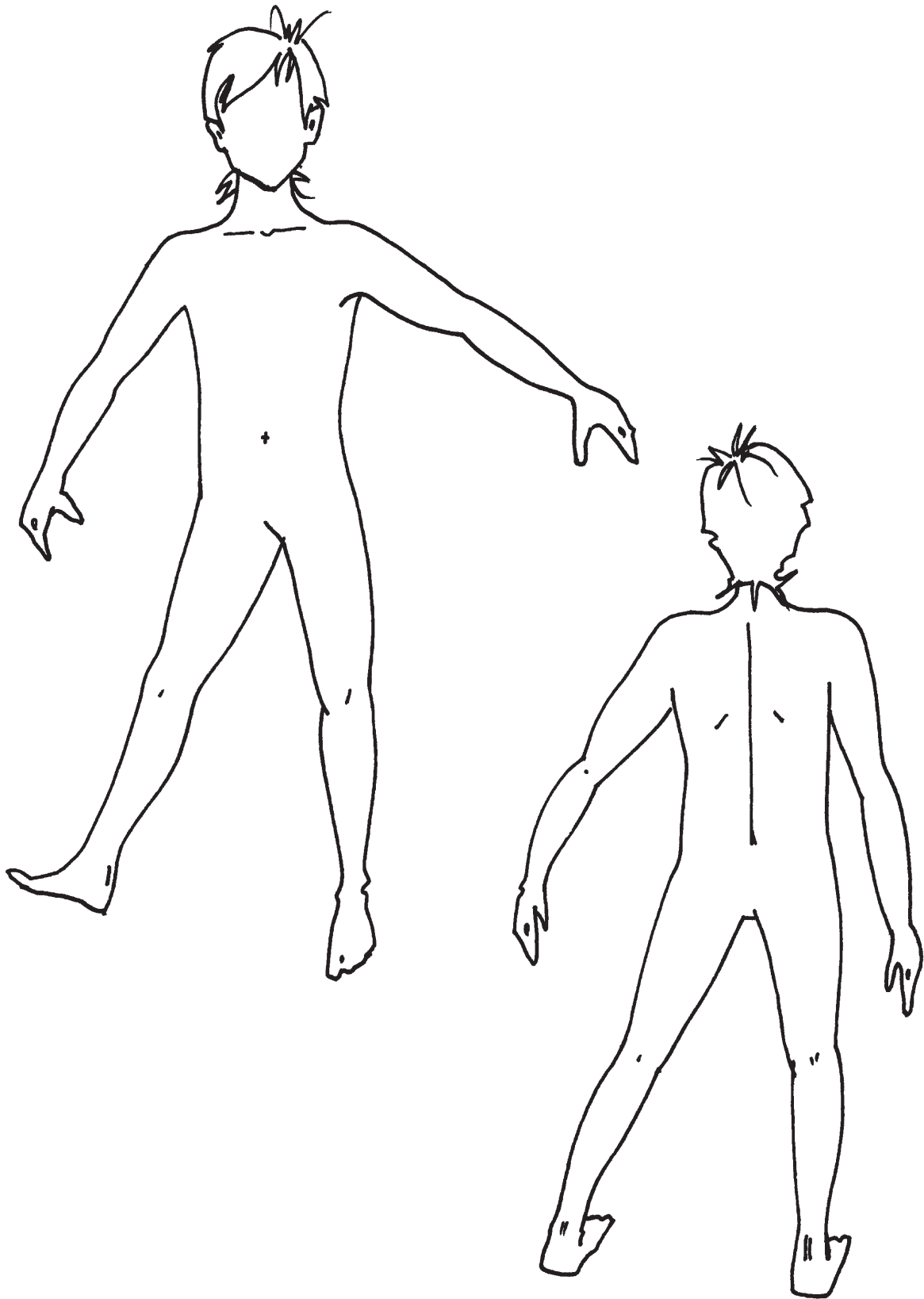
Use for tracing only. Do NOT sketch on this sheet. Do NOT hand it in with Writing Booklets.



BLANK PAGE

These outlines may be used for guidance when answering questions requiring clothing designs.

Use for tracing only. Do NOT sketch on this sheet. Do NOT hand it in with Writing Booklets.



BLANK PAGE