

BOARD OF STUDIES
NEW SOUTH WALES

HIGHER SCHOOL CERTIFICATE EXAMINATION

2000

TEXTILES AND DESIGN

3 UNIT (ADDITIONAL)

*Time allowed—One hour and a half
(Plus 5 minutes reading time)*

Directions to Candidates

- Attempt TWO questions, ONE from each 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

Attempt ONE question.

QUESTION 1 Fibre Structure

EITHER

- (a) The morphological and molecular structure clearly distinguishes one textile fibre from another.
- (i) With the aid of diagrams, explain in detail the morphological structure of each of the following:
- wool
 - cotton
 - rayon.
- (ii) State how the morphological and molecular structure influences the performance properties and uses of EACH of the fibres listed.

OR

- (b) The arrangement of polymer chains in fibres varies.
- (i) With reference to regenerated and synthetic fibres, discuss the impact of the degree of amorphous and crystalline regions on the following fibre properties:
- strength
 - lustre
 - absorbency
 - resiliency.
- (ii) Discuss how the blending of regenerated and synthetic fibres maximises the performance properties of the resultant yarn.
- (iii) Outline the advantages of a polyester/viscose blend for active sportswear.

QUESTION 2 Colour

EITHER

- (a) Objective methods for specifying colour have been extremely helpful to the textile and clothing industries, and to consumers.
- (i) Describe ONE objective method for accurately specifying colour.
 - (ii) Explain how the accurate specification of colour can be useful to the textile and clothing industries to achieve consistent product quality.
 - (iii) How does the consumer benefit from improved colour specification?

OR

- (b)
- (i) Explain why the perception of colour varies between individual observers.
 - (ii) Discuss the reasons why the same observer will register different responses to a particular colour, depending on the light source.
 - (iii) Explain how the same dye formulation can lead to different colour perceptions in fabric of varied surface textures.
 - (iv) Briefly describe objective methods for specifying colour that can minimise problems of colour matching for the textile industry.

QUESTION 3 Technological Developments

EITHER

- (a) Scientific and technological developments in textile processing have led to higher productivity and changed the nature of the textile and clothing workforce.

Discuss this statement with reference to EACH of the following:

- open-end spinning
- shuttleless weaving
- non-woven textiles.

OR

- (b) Textile developments continue to contribute to advances in many aspects of our society.

Describe the specific textile developments which have contributed to:

- full-length swimwear for elite performers
- lightweight outdoor recreational equipment
- synthetic surfaces for outdoor sports
- easy-care clothing
- protective clothing for harsh environments.

SECTION II—DESIGN

Attempt ONE question.

QUESTION 4 History of Clothing Design

EITHER

- (a) Discuss how changes in fashion design in the twentieth century reflect lifestyle developments and society's perception of beauty and modesty.

Provide specific examples to support your answer.

OR

- (b) Fashion has reflected significant changes in society throughout history.
- (i) With reference to a particular decade of fashion between 1900 and 1970, describe how fashion reflected the customs and traditions of the time.
 - (ii) Sketch a garment which represents the decade you discussed in part (i). Label those features that are characteristic of the decade.
 - (iii) Sketch and label a modification of this design to be suitable for a garment in the year 2000.
 - (iv) Describe how your design in part (iii) blends aspects of fashion from your chosen decade with present trends.

QUESTION 5 Theatrical Design

EITHER

- (a) An opera singer is to perform in an opera in an open park setting. Use the poem below as an inspiration for the design of a costume for this performance.

People are oceans that flow with the tide
 The mountains emotions, how I do like to hide
 The trees how they rustle so refreshing and clean
 The moonlight that shines with stardust and a dream
 This reminds me of youth and the childhood I know
 Of the flowers that bloom and sunshine that glows
 Let's become the river of time and continue our dreams
 This environment of mine is precious it seems.

- (i) Design, sketch, and fully label the design features of a costume to be worn by the opera singer (front and back views).
- (ii) Explain how the design features of the costume reflect the images portrayed in the poem.
- (iii) Identify the functional aspects of the design that you would consider when selecting fabrics and choosing construction techniques for the costume.
- (iv) Explain how the costume could be enriched by lighting techniques for an outdoor performance.

OR

- (b) You have been employed to produce a dance video based on the theme of insect life around a pond. The title of the dance is Microcosm.
- (i) State the type of dance routine (ballroom, jazz, modern, ethnic, tap, etc) that is to be performed.
 - (ii) Sketch and label ONE male and ONE female costume design, showing front and back views.
 - (iii) State the types of fabrics and the colour schemes you would use. Give reasons for your choices.
 - (iv) Briefly describe the set design for the dance routine.
 - (v) Discuss how you would use lighting to enhance the performance.

QUESTION 6 Fabric Design

EITHER

- (a) A travel company has commissioned you to design a range of fabrics to be used in its travel agencies.
- (i) Using one or more of the photographic plates on page 8 as a source of inspiration, sketch a suitable motif design for application to shirts that are to be worn by staff members.
 - (ii) Explain how you have incorporated ideas from the photographic plates(s) in your design.
 - (iii) Explain TWO techniques that would be suitable for applying the design to the fabric.
 - (iv) Sketch and label a modification of your design motif that would be suitable for the upholstery fabric to be used in the agencies' seating.

OR

- (b) You have been asked to decorate a fabric suitable for an evening jacket. The client wants you to use THREE different techniques for decorating the fabric that will be used for the jacket.
- (i) Sketch and fully label the fabric, indicating the techniques chosen, colours, and choice of fabric(s).
 - (ii) Describe each technique in detail.
 - (iii) Explain how these techniques could be modified for mass production.

QUESTION 6 (Continued)



Plate 1



Plate 2

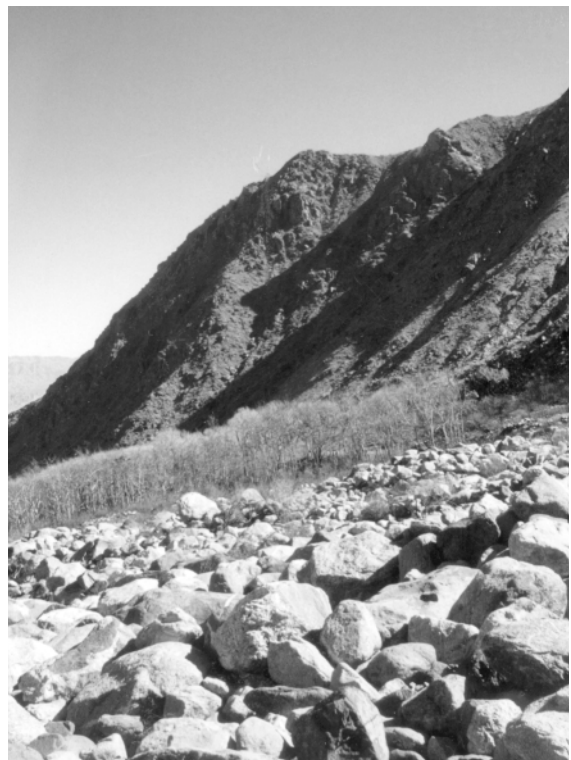
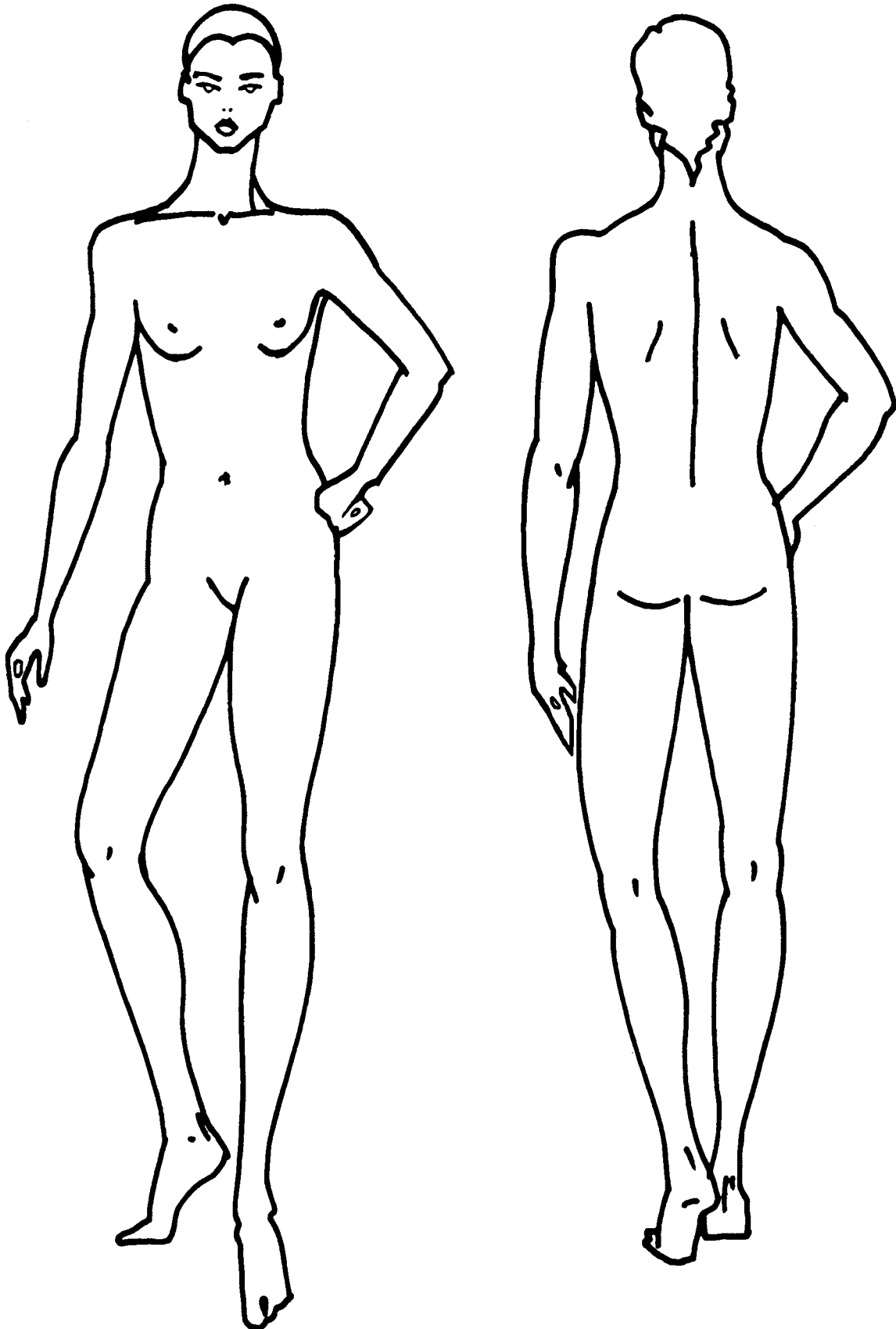


Plate 3

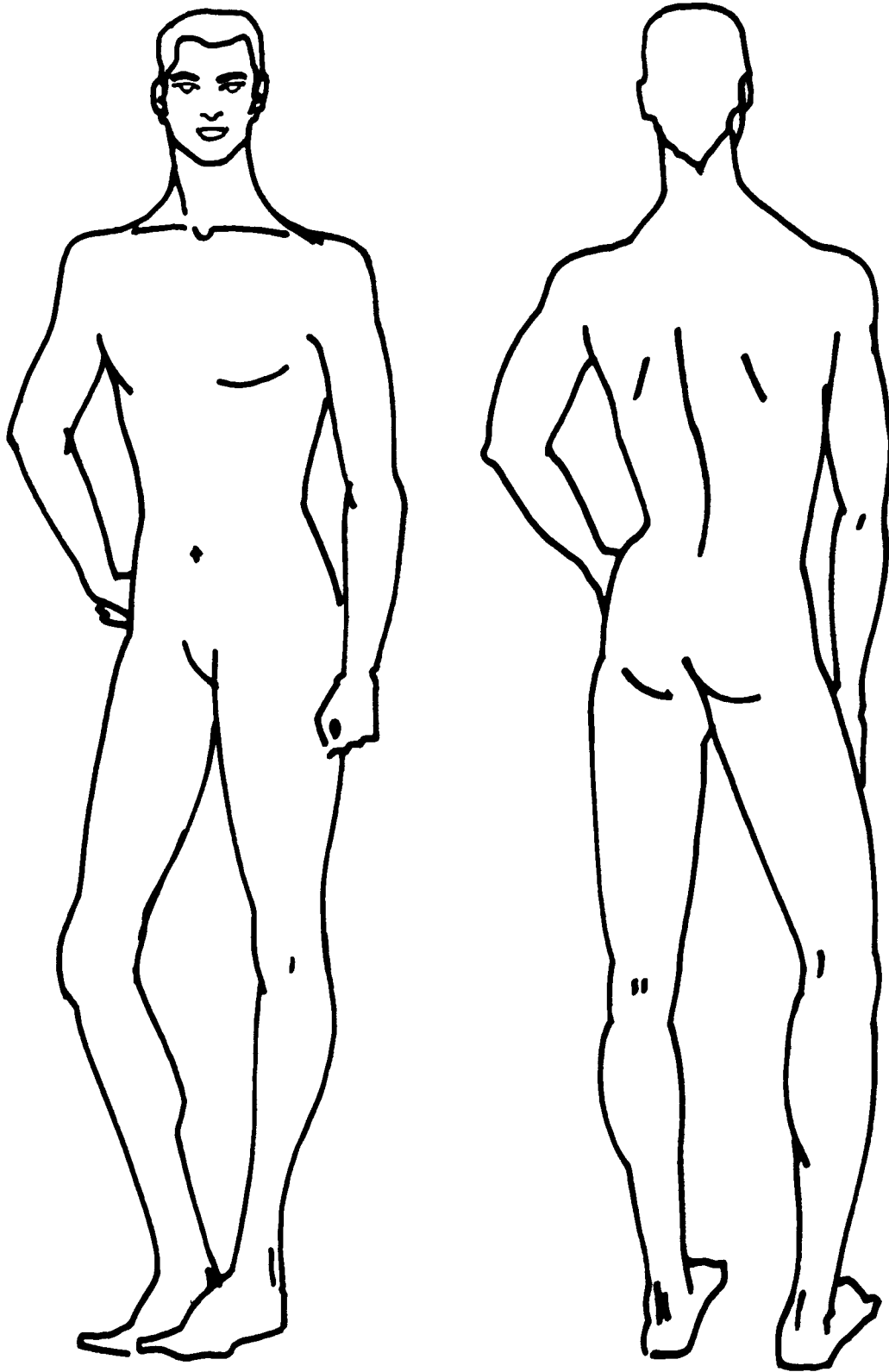
These outlines may be used for guidance when answering questions requiring clothing designs.

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