

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

TEXTILES AND DESIGN

In 1995, 1079 candidates presented for the examination in Textiles and Design and, of these, 762 presented for the 2/3 Unit examination and 317 for the 3 Unit.

2 UNIT

Section I : Science and Technology

Question 1 : Dyeing and Printing

In the best responses candidates:

- named and described in detail a different method of silk screen printing for each circumstance, viz:
 - (i) rotary screen printing
 - (ii) automated flat-bed screen printing
 - (iii) manual screen printing;
- provided fully labelled diagrams to which they referred in their explanations;
- justified each method of printing, giving cost and suitability as well as comparing all three methods.

In general areas of weakness candidates:

- incorrectly identified other methods of printing as *silk screen* printing;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- confused dyeing with printing;
- failed to give detailed descriptions of methods;
- were unable to name correctly the silk screen printing process which was being described; and
- did not justify their selection of methods in terms of cost and suitability.

Question 2 : Finishing

In the best responses candidates:

- suggested an appropriate fibre type;
- gave a detailed explanation of the finish suited to that fibre, e.g. wool, DFE causing shrinkage;
- provided a detailed explanation of the application of the finish, including the correct names of the chemicals and the correct methods, e.g. pad, dry, cure;
- gave clearly labelled diagrams as an explanation of the specific process;
- gave the correct finish names rather than repeating the fabric properties given in the question, e.g. water repellency - the finish could be shower-proofing.

In general areas of weakness candidates:

- nominated incorrect finishing processes for the fabric properties;
- confused the meaning of Easy-care and Dimensional Stability finishes;
- provided only generalised answers on the applications of finishing processes and gave insufficient detail;
- used the same finishing processes more than once.

Question 3 : Properties and Performance of Textiles

(a) In the best responses, candidates:

- identified and listed significant and specific performance properties for each of the products in their chosen group.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

(b) Here candidates:

- identified a suitable fibre blend for each of the given products;
- linked the blend to the desired properties;
- justified their choices and discussed fibre structure, e.g. amorphous/crystalline. They also indicated how this contributes to the property given to the blend by a particular fibre.

(c) Candidates:

- clearly identified two specific fabric structures, e.g. plain weave, weft knit;
- correctly illustrated an appropriate fabric structure for each of the properties, and stated how that fabric suited the end product;
- provided reasons which were directly linked to fabric structure rather than fibre content.

(a) In general areas of weakness, candidates:

- identified only two or three properties for each product or listed every property they knew, regardless of its relevance;
- listed properties unrelated to performance.

(b) Candidates:

- did not select an appropriate fibre blend;
- had a limited understanding of fibre contribution to properties;
- failed to justify their choices;
- supplied irrelevant knowledge, e.g. discussed yarn structure.

(c) Candidates:

- did not select an appropriate fabric structure for each of the products;
- failed to illustrate structure;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- either gave limited reasons for their choices, or often failed to give reasons;
- their understanding of fabric structure was often confused;
- identified performance and properties in (a) and (b) but did not justify their choices;
- either discussed all groups A, B and C, or chose one product from each;
- often assumed that there was one set of properties, blend and fabric for both products.

Question 4 : Properties and Performance of Textiles

In the best responses, candidates:

- gave a comprehensive list of performance requirements for a surfboard cover;
- chose a different fibre, yarn and fabric structure for each surfboard cover and justified their choices;
- identified the suitability of knit fabrics for a tubular cover and woven fabrics for a shaped cover with a zipper opening;
- stated fabric suitability tests, clearly outlined the procedure involved, and included a control when describing laboratory tests.

In general areas of weakness, candidates:

- misinterpreted Part (b);
- indicated a poor understanding of suitable fibres, choice and structure of yarns;
- gave the same fibre and yarn structure choices for both tubular cover and shaped surfboard cover;
- failed to include the use of a control in the laboratory tests described;
- provided inappropriate testing procedures, e.g. fibre identification rather than fabric-testing procedures.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

Section II : Textiles and Society

Question 5 : Culture and Textiles

(a) In the best responses, candidates:

- understood the textile crafts of the culture chosen;
- clearly related the lifestyle of the indigenous people to the changed role of the textile crafts;
- provided links between improved communications and textile crafts.

In general areas of weakness, candidates:

- failed to interpret the question with any degree of accuracy;
- provided general information about a number of cultures; this information, however, was frequently irrelevant or inaccurate.

(b) In the best responses, candidates:

- discussed in detail specific features of clothing design, including garment styles or style of wearing, fabrics, colours and methods of decoration;
- provided clearly labelled sketches indicating features;
- selected a culture which enabled them to relate beliefs, customs and traditions specifically to clothing design rather than textile arts in general, e.g. religious symbolism and use of colour;
- indicated the degree of technological development in the chosen culture and successfully determined its effect on fabrics, decorative techniques and colours used in the production of clothing.

In general areas of weakness, candidates:

- discussed textile arts in general rather than the clothing design of the specific culture;
- listed beliefs, traditions and customs of the culture without relating these specifically to clothing design;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- possessed limited or no knowledge of technological developments and how they affect the production of clothing.

Question 6 : History of the Textile Industry

(a) In the best responses, candidates:

- selected one area and outlined an extensive range of technological changes that have taken place since the Industrial Revolution;
- showed clear understanding and provided detailed information of how specific inventions have led to increased production and efficiency;
- provided a thorough explanation and comparison of how reforms in working conditions are just as necessary today as they were throughout the Industrial Revolution.

In general areas of weakness, candidates:

- either interpreted the question with only a limited degree of accuracy or misinterpreted the question;
- lacked knowledge of the relevant technological changes;
- were unable to provide information on how technological changes since the Industrial Revolution have led to increased production and efficiency;
- possessed only limited knowledge of reforms in working conditions.

(b) In the best responses, candidates:

- answered the question by referring to a variety of relevant inventions;
- showed a clear understanding of how the inventions chosen led to the establishment of the factory system during and since the Industrial Revolution.

In general areas of weakness, candidates:

- were unable to give examples of relevant textile inventions which led to the establishment of the factory system during the Industrial Revolution;
- did not appear to possess a clear knowledge and understanding of how these inventions led to the establishment of the factory system.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

Question 7 : The Australian Textile Industry

(a) In the best responses, candidates referred to the year 2000 Olympic Games and:

- nominated a wide range of textile products including manchester and furnishings for a variety of purposes, e.g. accommodation;
- mentioned a range of garments, e.g. athletes' uniforms and training togs;
- indicated promotional items such as banners and flags;
- named examples of manufacturing industries which would benefit from the event, e.g. designers, printers and crafts people;
- showed clear understanding of economic terms, e.g. tariffs, quotas, subsidies, bounties, and related these to the textile industry;
- discussed a wide range of marketing strategies, particularly advertising techniques.

In general areas of weakness, candidates:

- provided general statements about textile products without discussing the impact of these on employment and economic growth as a result of the Olympic Games of the year 2000;
- possessed a limited view of possible textile products associated with the Olympic Games;
- lacked understanding of economic terms;
- listed only media campaigns as being suitable marketing strategies.

(b) In the best responses, candidates:

- indicated the quantity of either wool or cotton fibre produced and exported;
- discussed recent government initiatives in the relevant industry, e.g. grants to develop production lines in processing;
- discussed raising consumer awareness of the diversity of products produced;
- raised the issue of value-added products;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- provided information on computerisation, automation and harvesting techniques;
- discussed genetic engineering to improve breeds of sheep and/or types of cotton;
- mentioned environmental impact statements and rising salinity as a result of irrigation;
- discussed pollution as a result of pesticides and fertilisers;
- discussed energy conservation techniques used in manufacturing processes.

In specific areas of weakness, candidates:

- did not know the importance of the specific fibre to the Australian economy;
- were unable to name specific technological developments;
- listed environmental concerns but were unable to explain their impact on the specific industry.

Section III : Design

Question 8

In the best responses, candidates:

- stated the design brief, including specific constraints, e.g. the target market, theme or resource usage;
- included a series of headings in the design process - analysis; idea generation; research; inspiration; investigation; experimentation; production; construction and evaluation. Each step was in a logical order, its implementation was described, with specific details often being quoted;
- sketched front and back views as working designs, showing closures or access features;
- clearly labelled fibre, colour and design features;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- included construction/seam lines;
- listed separately functional and aesthetic aspects of design and related them to specific features on the design sketch;
- indicated appropriate methods for final project evaluation. Techniques for evaluating were explained and reference made to the design criteria, surveys, public displays, simulation, consumer response and modelling methods.

In general areas of weakness, candidates:

- were unable to write the design brief - did not state the problem to be solved or the task to be completed. Many were obviously confused between construction process and design process;
- failed to produce a flow-chart structure - their answers included no definite headings and poor sequencing. Not all aspects of a design process were included, either by name or description of implementation;
- provided insufficient detail on sketches. Fibre content, colour and specific design features were inadequately labelled;
- confused design *features* with design *requirements* and were unable to identify and discern between *functional* and *aesthetic* features;
- indicated methods which were not relevant to final project evaluation. Many of these candidates explained experiments and tests they would conduct on fabric during research prior to the production of the item.

Question 9

In the best responses, candidates:

- chose an original theme for the local festival chosen;
- designed a motif which clearly depicted their specific theme (simple and stylised motifs);
- sketched three differently shaped banners or flags;
- incorporated the complete motif into each banner or flag in a different way, e.g. altering size, position, direction, etc;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- used colours or clearly labelled their sketches;
- named appropriate fabrics and choices for banners and flags;
- chose decoration techniques appropriate to the design of the banner or flag and its motif;
- described processes and two decoration techniques in detail;
- showed a clear understanding of the application of the design process.

In general areas of weakness, candidates:

- lacked understanding of how to design a motif, and failed to make a clear distinction between a motif, logo, slogan or picture;
- designed motifs which were very complex and unsuitable to reproduce by the suggested decoration techniques;
- sketched banners or flags which were not significantly different in shape;
- omitted the motif from the design of the banner or flag;
- indicated fibre names but not fabrics, suggesting that they were unable to distinguish the difference. Fabrics suggested were not always suitable for the end-use;
- chose decoration techniques that were unsuitable;
- justified the processes rather than describing them in detail;
- did not answer all parts of the question.

Question 10

In the best responses, candidates:

- showed awareness of the importance of corporate clothing;
- clearly labelled sketches of three items of clothing and one accessory, indicating style features, fabric, structures and colours;
- showed a sound knowledge of the aesthetic aspects of their design;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- identified fibre types and fabric structures such as jersey weft knit, plain or twill weave, and provided reasons for their use;
- provided the consumer information required on a care label; they also related fibre content and style to garment care.

In general areas of weakness, candidates:

- had a limited understanding of the concept of a *corporate image*;
- failed to include three items of clothing and one accessory;
- chose a variety of accessories which were inappropriate to the *corporate image*;
- provided poorly labelled style features and fabric structures.

Question 11

In the best responses, candidates:

- named a suitable home-furnishing item to which they gave an appropriate name;
- provided a clear sketch which was fully labelled and named specific design features;
- provided creative ideas and extensive use of denim jeans parts, e.g. zipper, carriers, label, side seams (flat fell), studs, buttons;
- provided comprehensive production processes. The techniques of construction were appropriate and the process fully explained with the aid of diagrams giving specific stitch type or method of assembly, e.g. glue, staples, nails, velcro;
- included an extensive list of suitable criteria, providing information which was related to the design brief.

In general areas of weakness, candidates:

- either did not suggest a suitable home-furnishing item or failed to give it a title;
- provided confused sketches which lacked labels indicating features. They also failed to make maximum use of jean parts, i.e. mainly used legs, seat or pockets;
- provided only a brief outline of the production processes involved;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- failed to answer part (d) or misinterpreted the question;
- lacked specific knowledge about home furnishing construction techniques.

3 UNIT

Section I : Science and Technology

Question 1 : Fibre Structure

(a) In the best responses, candidates

- discussed the four fibres in relation to molecular and morphological structure in extensive detail;
- identified and related appropriate properties for the stated end-uses;
- understood the concept of critical evaluation.

In general areas of weakness, candidates:

- provided morphological and molecular information but failed to relate the information to the stated end-uses;
- stated properties but did not provide an evaluation or explanation of them;
- had limited knowledge of morphological or molecular structures of the chosen fibres.

(b) In the best responses, candidates:

- showed a clear understanding and knowledge of both morphological and molecular structures for elastomeric and cotton fibres;
- described in detail the suitability of a cotton/elastomeric blend of fabric suitable for active sportswear.

In general areas of weakness, candidates:

- lacked a clear understanding of the terms *molecular* and *morphological* in relation to elastomeric and cotton fibres;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- listed the relevant performance criteria but were unable to explain how these are achieved with a cotton/elastomeric blend;
- attempted to provide information on only one fibre and **not** a blend of the two.

Question 2 : Colour

(a) In the best responses, candidates:

- provided diagrams which were accurate, clearly labelled and accompanied by detailed explanations;
- showed their understanding of *objective* and *subjective* methods as well as the differences between additive and subtractive colour mixing;
- stated formulae, which they illustrated with clearly explained examples;
- graphed, named and explained illuminants;
- clearly understood the conditions under which metamerism occurs;
- provided extensive examples of how specific problems can be overcome;
- provided detailed explanations of the importance of metameric colour- matching in the textile industry.

In general areas of weakness, candidates:

- provided inaccurate diagrams and limited information;
- lacked knowledge of illuminants and were unable to provide adequate explanations;
- possessed little understanding of metamerism;
- were unable to discuss how to overcome the problem.

(b) In the better responses, candidates:

- showed a sound knowledge of both the Munsell system and the CIE system of colour measurement;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- provided a detailed comparison which included accurate diagrams and graphs.

In general areas of weakness, candidates:

- showed a limited knowledge of the systems of colour measurement;
- were unable to compare the two systems;
- provided inaccurate and poorly labelled diagrams.

Question 3 : Technological Developments

(a) In the best responses, candidates:

- named a specific technological development of textile production;
- accurately compared the chosen development with traditional or conventional techniques;
- explained the workings of the new development and how the process was previously carried out;
- related the new development to a more effective and competitive textile industry in areas such as labour costs, production levels, quality and variety.

In general areas of weakness, candidates:

- failed to compare the new development with the conventional or traditional process or technique it had replaced;
- were apparently unable to assess the impact of the new development on the textile industry.

(b) **Note: Very few candidates attempted this question.**

In the best responses, candidates:

- named appropriate fibres for use in the specialised field of non-apparel textiles;
- provided detailed information of production processes;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- provided a comprehensive range of end-uses;
- indicated only positive aspects of the impact of this textile field on the environment, ignoring any negative aspects.

In general areas of weakness, candidates:

- were unable to discuss critically this textile field;
- referred to fibre selections but provided a limited range of end-uses;
- did not discuss either production processes or environmental impact.

Section II : Design

Question 4 : History of Clothing Design

(a) In the best responses, candidates:

- referred specifically to the two cultures and/or sub-cultures chosen;
- named the type of clothing worn in each culture;
- defined the terms *culture* and/or *sub-culture*;
- showed a thorough knowledge of the style of clothing and related this to cultural values, customs, beliefs, traditions, geography, law, modesty and availability of resources;
- critically assessed the types of clothing worn.

In general areas of weakness, candidates:

- failed to interpret the question or misinterpreted the meaning of the word *sub-culture*;
- provided irrelevant information about types of clothing in the two cultures;
- tended to discuss *textile arts* rather than clothing;
- provided poorly labelled diagrams instead of discussion of essential facts;
- were unable to give a critical evaluation of the types of clothing worn.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

(b) In the best responses, candidates:

- provided significant detail about the specific period and included dates;
- discussed the styles of each designer in the context of either the period or particular societal statement;
- provided detailed, annotated sketches which reflected the well known features of each designer;
- discussed the importance of fashion parades in providing the consumer with news of current trends in Australia and overseas;
- understood the role of fashion parades as promotional events for wholesale and retail markets.

In general areas of weakness, candidates:

- showed little knowledge or understanding of the styles of the designers chosen;
- provided sketches which were poorly labelled;
- lacked knowledge of the role of fashion parades in bringing clothing designs to the consumer.

Question 5 : Theatrical Design

(a) In the best responses, candidates:

- indicated the period of the play and explained the setting;
- clearly labelled front and back views of the costume with design features illustrating specific qualities of the character;
- indicated suitable functional criteria including fabric properties and design features;
- provided creative lighting techniques and indicated their possible effects on both the costume and the setting;
- provided accurate information when specifying indoor and outdoor lighting techniques.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

In general areas of weakness, candidates:

- failed to provide sufficient information to identify the setting;
- showed poor design skills and were unable to supply sufficient labelling;
- discussed the functional criteria of the costume, but failed to consider that it would have to be transferred from one place to another;
- lacked knowledge of specific types of lighting and their effect on costumes and settings;
- discussed lighting in general terms but did not specify suitable lighting for indoor and outdoor venues.

(b) In the best responses, candidates:

- presented original character ideas through well labelled designs;
- showed a sound knowledge of fabric types and various fabric structures;
- many used three or more fabric types and fabric structures;
- explained in detail how the design features portrayed in the sketch reflected the character's personality, while keeping in mind the idea of entertaining children;
- provided appropriate suggestions for the functional aspects of the design in relation to both the fabric selection process and the construction of the clothing.

In general areas of weakness, candidates:

- sketched the costume but failed to indicate all style features and design lines;
- failed to label sketches adequately;
- lacked understanding of the concept of *physical features*;
- showed limited knowledge of various fabrics and fabric structures.

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

Question 6 : Fabric Design

(a) In the best responses, candidates:

- produced designs which reflected the botanical inspiration provided;
- suggested appropriate placements of the design on the fabric;
- clearly labelled colours and colour schemes, simply saying, for example, *monochromatic*;
- provided logical and clear descriptions of the methods of application;
- showed an appreciation of the factors to be considered when adapting designs for upholstery fabrics, e.g. size, strength of fabric and method for application of design;
- adequately explained the design process used, providing logical steps throughout the process.

In general areas of weakness, candidates:

- sketched designs which did not appear to be inspired by the illustrations provided;
- failed to label sketches and indicate colour schemes;
- proposed methods which did not suit the complexity of the design;
- showed little development of the design from a curtain fabric to one suitable for an upholstery fabric;
- lacked the ability to adapt the original design;
- lacked knowledge of the design process;
- provided no explanation of the design process used to adapt the design.

(b) In the best responses, candidates:

- used the illustrations provided as the design source;
- produced creative design solutions;

1995 HIGHER SCHOOL CERTIFICATE EXAMINATION

- clearly labelled the design, e.g. specified fabric names, colours, decoration techniques and structural features;
- provided a precise description of the major decoration technique;
- illustrated and described how the original technique could be varied to provide a range of textural effects;
- listed and discussed briefly the factors influencing the pricing and marketing of the fashion top.

In general areas of weakness, candidates:

- failed to name specific fibres and fabrics;
- poorly labelled sketches;
- provided inadequate descriptions of decoration techniques;
- did not indicate how the chosen technique could be altered to provide different texture(s);
- failed to identify factors influencing pricing and marketing.