



Victorian Certificate of Education

2004

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Figures

Words

Letter

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DESIGN AND TECHNOLOGY

Written examination

Friday 5 November 2004

Reading time: 11.45 am to 12.00 noon (15 minutes)

Writing time: 12.00 noon to 1.30 pm (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	3	3	34
B	5	5	59
			Total 93

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers, coloured pencils, markers, a shape template and a female human figure template and a male human figure template.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 10 pages with a detachable Design Brief Insert in the centrefold.

Instructions

- Detach the Design Brief Insert from the centre of this book during reading time.
- Write your **student number** in the space provided above on this page.
- You may use diagrams, notes or sketches to help explain your answers.
- All written responses must be in English.

At the end of the examination

- You may keep the detached Design Brief Insert.

Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.

SECTION A

Instructions for Section A
Answer **all** questions in the spaces provided.

Question 1

NiE has been a popular selling range of sports shoes for a number of years. This expensive brand is sold only in specialist sporting goods stores and recently sales have started to decline. Currently the shoes are being promoted in magazines and on television. The company wants to implement a marketing strategy to increase sales and maintain market position.

Using the headings below outline a new marketing strategy.

- i. product _____

- ii. price _____

- iii. place _____

- iv. promotion _____



Question 2

Shady Lenses is a company which manufactures sunglasses.

- a. Give an example of how the company might **respond to consumer demand** for a new range of sunglasses.

2 marks

- b. Give an example of how the marketing team could **create demand** for a new range of sunglasses.

2 marks

- c. Describe an ethical issue that relates to the marketing of sunglasses.

2 marks



Total 6 marks

**SECTION A – continued
TURN OVER**

Question 3

A manufacturer of electrical appliances plans to produce a new toaster. Research and development will need to be undertaken and will focus on appearance and function.

a. List three points to consider in each of the two categories below.

i. Appearance

- _____
- _____
- _____

ii. Function

- _____
- _____
- _____

3 + 3 = 6 marks

b. i. **What** is a technological development that may influence the design of a toaster?

ii. Explain **how** this technological development might influence the design of a toaster.

1 + 2 = 3 marks

The manufacturer intends the toaster to have a **planned obsolescence**.

c. i. What are the **benefits** of planned obsolescence?

ii. What are the **problems** associated with planned obsolescence?

2 + 2 = 4 marks

The toasters will need to be mass-produced.

- d. i.** What are the **benefits** of mass-producing the toasters?

- ii.** What are the problems associated with mass-producing the toasters?

- iii.** What will the **designer** have to consider when planning for mass production?

2 + 2 + 2 = 6 marks

The manufacturer intends to use methods of **Quality Management**.

- e. i.** Define the term **Quality Management**.

- ii.** Why is quality management used in the manufacturing industry?

2 + 3 = 5 marks

Total 24 marks

**END OF SECTION A
TURN OVER**

SECTION B**Instructions for Section B**

Select one product from the 'Design Brief Insert' and answer the following questions.

Identify your selected product below.

outfit

lectern

tableware

Question 4

- a. What are the main tasks that you need to perform in your role as the designer of your selected product?

3 marks

- b. Identify the client for whom you are designing and explain their role.

Client _____

Role _____

2 marks

- c. List the methods that you would use to communicate your ideas to your client in the initial stages of the design process.

3 marks

The brief does not provide **all** the information that you need as the designer.

- d. Develop a question that you could ask the client to gain more information.

2 marks

Total 10 marks

Question 5

List two important specifications from the design brief, develop two evaluation criteria questions and justify each question. Indicate how you would test/check to see if the evaluation criteria have been met in the finished product.

Specification one _____

i. Evaluation question _____

ii. Justification of question _____

iii. Method of testing/checking _____

1 + 2 + 2 = 5 marks

Specification two _____

i. Evaluation question _____

ii. Justification of question _____

iii. Method of testing/checking _____

1 + 2 + 2 = 5 marks

Total 10 marks

Question 6**Annotated Design Option**

Develop a design in the space below.

You need to pay particular attention to the following.

- | | |
|--|---------|
| i. clarity and detail of drawing | 6 marks |
| ii. function – suitability for the product’s intended use | 3 marks |
| iii. clear annotation that satisfies the expectations of the design brief | 3 marks |
| iv. form/aesthetic appeal | 3 marks |
| v. innovation/creativity of design | 3 marks |

Total 18 marks

SECTION B – continued

Question 7

- a. i. Identify the **specific** materials that you have selected to use in your design.

- ii. Which specification from your chosen design brief influenced your choice of materials? Justify how the specification influenced your choice of materials.

Specification _____

Justification _____

1 + 3 = 4 marks

- b. Name two properties/characteristics of one of the materials that you have selected to use in your design. Explain how each property/characteristic has influenced you to choose that particular material.

Material _____

- i. Property/characteristic _____

Explanation _____

- ii. Property/characteristic _____

Explanation _____

3 + 3 = 6 marks

- c. You find that your chosen material is unavailable.

- i. Choose an alternative material.

- ii. How does this alternative material affect your product?

1 + 2 = 3 marks

Total 13 marks

Question 8

You need to provide your client with a price to produce the product that you have designed.

- a. What would you need to consider when estimating the cost of the product?

3 marks

As the designer you must consider the life cycle analysis of any product that you design and try to minimise the impact on the environment.

- b. Fill in the table below to analyse the possible impact of your product.

Stage of life cycle	Environmental concern
Source of materials	
Manufacture	
Product packaging and transportation	
Product use	
Disposal	

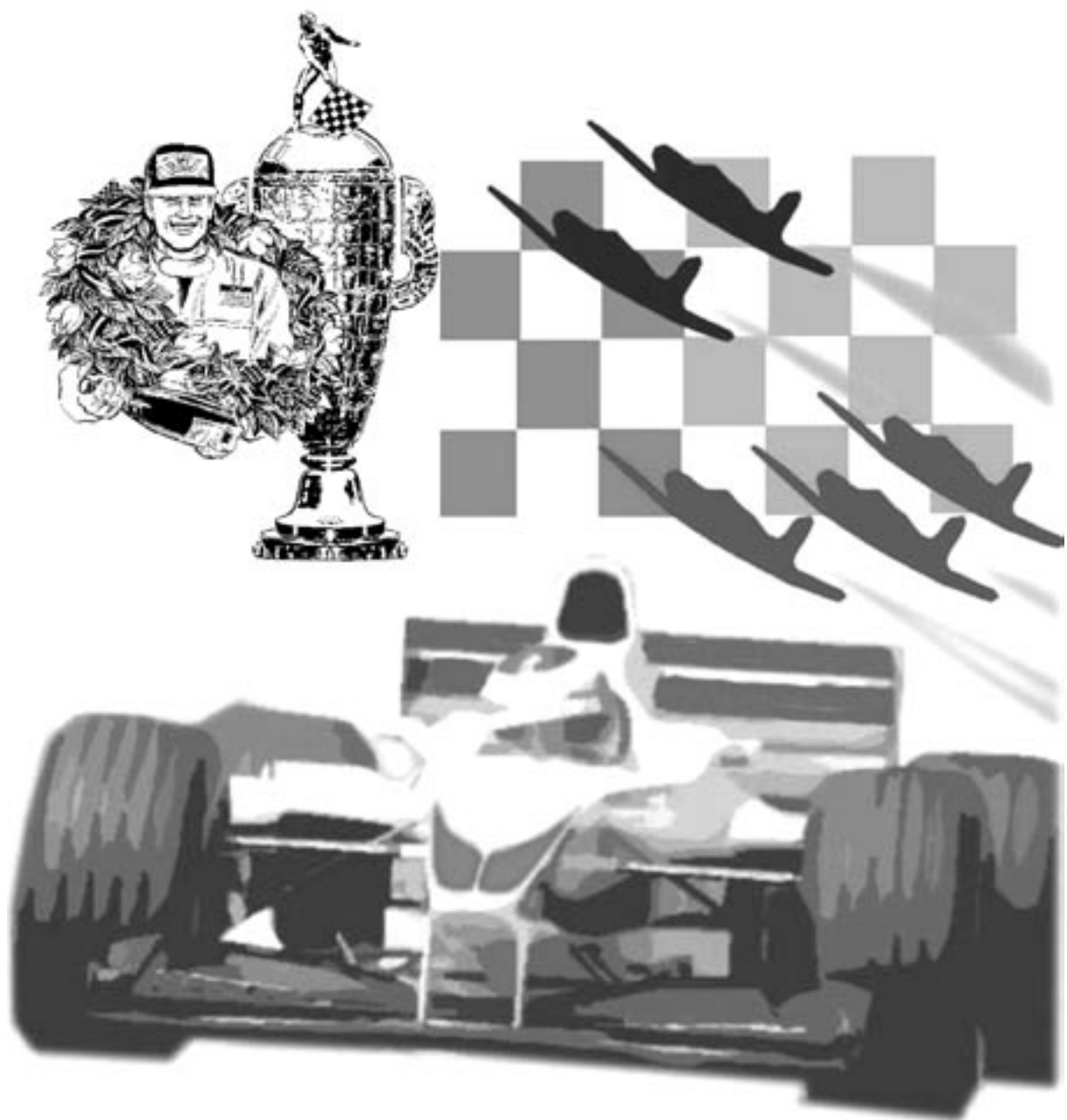
5 marks

Total 8 marks

Please remove from the centre of this book during reading time

D E S I G N B R I E F I N S E R T

TURN OVER



Design Brief

The Grand Prix is one of Australia's most prestigious sporting events. It attracts many visitors and a lucky few spend their time in corporate marquees (tents).

Sponsors of this event spend a great deal of money on hospitality for their clients.

As a designer you have been commissioned by one of the sponsors, 'Tourism Melbourne', to submit designs that will feature at the event.

You are required to design a product that will be used or worn on the day. Remember the occasion is the Grand Prix and any items must reflect the prestige and glamour of the event.

Fibres/Yarns/Fabrics – Outfit

Tourism Melbourne will have various members of staff representing it at the Grand Prix and has requested outfits for the staff.

Design **one** outfit for one of the staff.

- The **outfit** must be suitable for the unpredictable Melbourne autumn weather.
- You need to consider suitable fabrics for the potential weather conditions in autumn.
- Tourism Melbourne is looking for **innovative** designs that will make its staff stand out in the crowd.
- The staff are in their 20s so garments need to be trendsetting.

Wood/Metal – Lectern

Tourism Melbourne requires a design for a lectern (sloping reading stand) that can be positioned on top of a small stage area for presentations. The speakers will use the lectern to rest their notes on when they are making presentations.

Design a lectern for the sponsor.

- Tourism Melbourne is looking for **innovative** designs that reflect the prestige of the event.
- You must be able to adjust the height of the lectern for different presenters.
- You must include a microphone and a sloped area where speakers can place their papers.
- As Tourism Melbourne is an Australian company, it would like to feature **Australian materials** in the lectern.

Plastics/Ceramics/Glass – Tableware

Tourism Melbourne would like a new range of distinctive tableware (platters, bowls, glasses, plates and so on). The tableware will be used in the marquee throughout the day to serve finger food and also during a buffet style lunch.

Design a range of tableware to be used on the day.

- The tableware must be visually pleasing and ergonomically comfortable to use.
- The items of tableware should be easily stacked for transportation and minimal, efficient storage.
- At least three pieces of tableware must be included in the range.
- Tourism Melbourne is looking for innovative designs that are unique and stylish.