



Design and Technology 2007–2011

Written examination November

Examination specifications

Overall conditions

The examination will be sat at a time and date to be set annually by the Victorian Curriculum and Assessment Authority.

There will be 15 minutes reading time and 90 minutes writing time.

VCAA examination rules will apply. Details of these rules are published annually in the *VCE and VCAL Administrative Handbook*.

The examination will be marked by a panel appointed by the VCAA.

The examination will contribute 30 per cent to the Study Score.

Content

All outcomes of Units 3 and 4 will be assessed. All of the key knowledge and skills that underpin the outcomes are examinable.

Format

There will be two sections in the examination. All questions will be compulsory.

Section A (approximately 35–50 marks) will consist of a series of short and extended answer questions which may require diagrammatic responses.

Section B (approximately 35–50 marks) will consist of short and extended answer questions. These questions may be stand alone questions, or questions of increasing complexity which relate to a design scenario. The questions may relate to previously unseen stimulus material. There will not be any questions relating to the students own work or to the work produced for their School Assessed Task although the underpinning key knowledge and skills relating to the School Assessed Task will be examinable.

The examination will be in the form of a question and answer book.

Approved materials and equipment

Students are permitted to bring into the examination room in addition to normal stationery: coloured pencils, markers, a shape template and a female human figure template and a male human figure template.

Advice

During the 2007–2011 accreditation period for VCE Design and Technology, examinations will be prepared according to the Examination specifications above. Each examination will be an interpretation of these specifications and will test a representative sample of the key knowledge and skills.

The following sample questions have been prepared in order to provide an illustration of how this study might be examined. The emphasis, in the following sample questions, is on new aspects in the revised Study Design.

Sample questions

SECTION A

Question 1

List at least one new or emerging technology, material or process used in the manufacturing industry today and explain its importance.

3 marks

Question 2

Manufacturing industries are affected by design and production costs. When producing products, the manufacturer must also take into account ethical, environmental, ecological and social factors. Give one example of each of these factors.

Ethical factor	Environmental factor	Ecological factor	Social factor

4 marks

Question 3

Explain the importance of design in 'value adding' in the product cycle.

2 marks

Question 4

Design factors, fundamentals and applications assist the designer in meeting needs or requirements. Two factors are listed below. Complete the table by listing two fundamentals and applications that apply to each factor.

Design factor	Fundamentals	Applications
Human needs and wants	1	1
	2	2
Legal compliance	1	1
	2	2

2 + 2 + 2 + 2 = 8 marks

Question 5

Style obsolescence and technical or functional planned obsolescence have benefits and problems for the producer and consumer. Suggest one benefit and one problem for the producer and consumer in the table below.

	Style obsolescence	Technical or functional planned obsolescence
Benefit for producer		
Benefit for consumer		
Problem for producer		
Problem for consumer		

8 marks

SECTION B

Scenario

Your local council is hosting a group of people from an overseas council. The purpose of their visit is to forge links between the two countries that may generate business, and also form cultural and educational connections. It is anticipated that eventually there will be student exchanges between the two countries. The council have invited the schools in the local community to contribute examples of pieces of work that demonstrate the creative talents of the local school students. The pieces of student work will be part of a larger display that will include submissions from local service, sporting and cultural organisations as well as local businesses. The student works must reflect **one** of the following themes: Australian landscape/urbanscape, Australian flora/fauna, the Australian lifestyle. The products are to be displayed during the visit, in a large indoor area at the council offices.

You are required to design and make a product that will be displayed.

The local council is your client and it has appointed a representative who will oversee the work in progress and give you any guidance you may require.

The products submitted should demonstrate the skills taught and acquired in your Design and Technology class. The budget allowed for this project is very generous, but all products must be costed and the cost submitted at the same time as you discuss your initial ideas with the council representative. The representative will decide whether you will be able to continue with that design or whether you will have to make modifications to reduce costs. The reason for this is to allow students to initially be unhampered by price considerations in the development of their ideas.

You may use any materials you like, but the raw material must have been sourced in Australia even if it has been processed elsewhere. The council prefers that, if it is possible, finished products should in some way promote the local area, but it realises that this is a difficult criterion and it is not mandatory.

The council has stressed the importance of the standard of work of the finished products. The finished products must be well made, but preference will be given to work that also demonstrates very good design skills. As an inducement, the council is offering the students whose work is chosen for the display the chance to be included in an exchange visit.

Question 1

Suggest **two** ways in which you could present some initial creative ideas to the council representative.

2 marks

Question 2

Given the above design scenario, describe **three** areas of research that may need to be undertaken to assist in the designing and making of the product.

3 marks

There are a number of requirements in the design scenario that could be developed into a design brief and subsequently into evaluation criteria.

Question 3

- a. Develop three of the requirements into evaluation criteria, rank them in order of importance and justify why you have chosen each one. Discuss how each could be tested or checked against the finished product.

Ranking	Evaluation criteria	Justification	Method of testing or checking against finished product

9 marks

- b. Explain why your first ranked criterion is more important than the other two.

3 marks

Question 4

Draw and annotate your design in the space below.

- i. Annotation of design specifications 3 marks
- ii. Clarity and detail of drawing 6 marks
- iii. Function/suitability for intended use 3 marks
- iv. Innovation and creativity 6 marks

Question 5

List **three** important components of a work plan.

3 marks

Question 6

What is risk assessment and why is it important when developing a work plan?

1 + 2 = 3 marks

Question 7

Your project has been selected by the council. You are now required to produce a promotional presentation to accompany it overseas. Using two of the 5 P's explain how you will promote the features of your product.

List two of the 5 P's of marketing	Method of promoting the features of your product

6 marks

Question 8

a. What method will you use to explain the use and care requirements of the product to the end-user?

2 marks

b. Why have you selected this method?

3 marks