

CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education  
Advanced Level

**BUSINESS STUDIES**

**9707/03**

Paper 3 Case Study

October/November 2003

Additional Materials: Answer Booklet/Paper

**1 hour 45 minutes**

**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.  
Write your Centre number, candidate number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

The business described in this question paper is entirely fictitious.

This document consists of **4** printed pages.



**Oriental Engineering Ltd.**

Oriental Engineering Ltd. specialise in the manufacture of tractors. These are large vehicles that are used in building and farming for digging trenches and ploughing fields. The designs are several years old but they have an excellent reputation for reliability. Sales have fallen in recent years due to the availability of competitors' models with more modern features. The business has been slow to change to market trends. Chris Hsiang, appointed as Chief Executive just six months ago, believes that this is largely due to the formal organisational structure of the business. This is very hierarchical and leads to slow decision making. Also, senior managers seem to be out of touch. They are reluctant to delegate and prefer a centralised system of control. 5  
10

As soon as Chris was appointed he set up a small research and development department. This research and development team has come up with the design of a computer controlled tractor - "Autotrac"- one that can be operated with no driver. The machine would be programmed to, for example, plough fields automatically. This could save farms and building firms large sums of money. Chris and his directors think it is an excellent idea. 15

Market research was conducted and the results shown in a decision tree. The final outcome of the project depends not just on the market research results but also forecasts for the economy. The completed decision tree is shown in Appendix A.

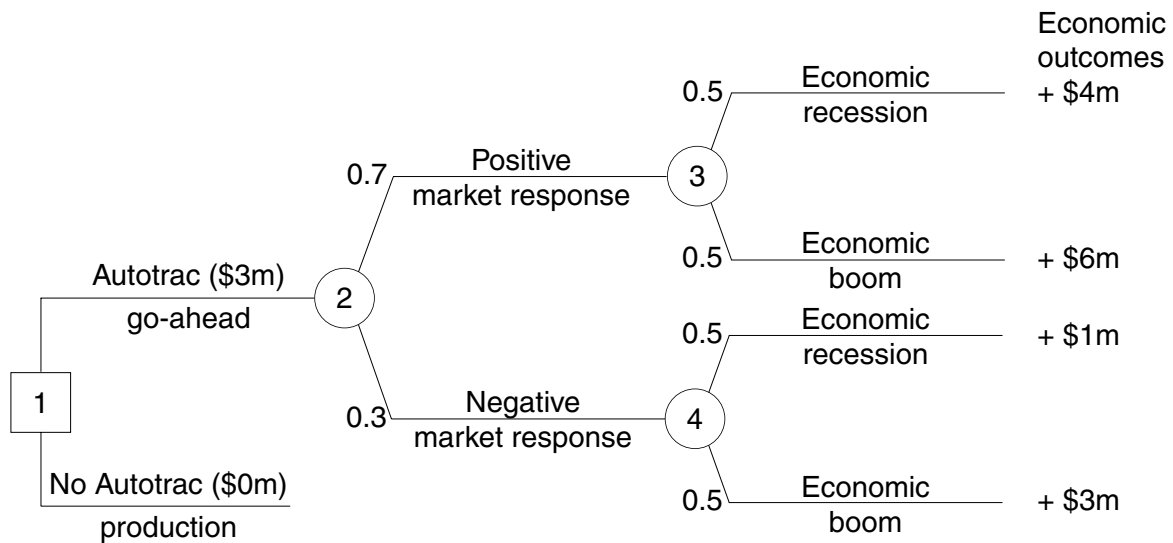
The following departments will be involved in putting the new idea into production: 20

Operations: The existing factory is rather small and poorly located near the town centre. It is not very accessible for large trucks but the business has never had problems filling skilled staff vacancies. The Operations Manager believes that the introduction of a new product range would give the business a good opportunity to relocate. Other areas of the country would offer cheaper land costs and labour rates. A new site, perhaps on farm land, would allow a modern factory to be built with the latest layout and facilities. There would be many issues to take into account - cost of manufacture was only one of them. The reluctance of managers to move could be important and there would be problems in gaining planning permission for a factory that had environmental effects on the area. It is thought that most of the workers would move if they wanted to keep their jobs. 25  
30

Finance: It is estimated that \$3m will be needed to purchase the latest equipment to allow the Autotrac to be built as efficiently as possible. If relocation is also decided upon then this would add a further \$2m to the capital costs. The Finance Director knew that the business' finances (see Appendix B) were limited. The possibility of converting into a public limited company was likely to be discussed at the next board meeting. 35

Marketing: Oriental currently sell most of their machines to small farms. The pricing is competitive as they have many rivals for their existing products. Autotrac will be more expensive. It is likely to be bought by larger farms with more resources. There could also be a substantial export demand for such a product. The marketing strategy for the new product will need to be very different from that currently used. The pricing decision will be a key component of this marketing mix. 40

Despite the need to consider so many decisions, the directors are keen to proceed with the new product idea. Success with the Autotrac could lead to new project teams being established to work on even more advanced products. 45

**Appendix A** Decision Tree for the Autotrac project**Appendix B** Balance Sheet for Oriental Engineering Ltd. as at 13/9/03

		\$m
Fixed Assets:	Factory	15
	Machinery (net book value)	<u>13</u>
		28
Current Assets:	Stocks	4
	Debtors	2
	Cash	<u>2</u>
		8
Current Liabilities:	Creditors	2
	Tax due	<u>2</u>
		4
Net Current Assets		4
Net Assets Employed		<u>32</u>
Long Term Liabilities		18
Shareholders' Funds:	Capital	7
	Reserves	7
Capital Employed		<u>32</u>

- (a) Discuss the factors the company directors should consider before deciding whether to relocate the factory. [10]
- (b) (i) Outline the importance of value analysis to the development of the Autotrak product. [6]  
(ii) The marketing manager needs to decide on the price for the Autotrak. Advise the marketing manager on an appropriate pricing strategy for this new product. [10]
- (c) (i) Using the decision tree in Appendix A, calculate the expected return from manufacturing the Autotrak. Show all of your working. [6]  
(ii) Evaluate the usefulness of this technique to the business' management when taking the decision whether to build the Autotrak or not. [6]
- (d) Assume that the business goes ahead with the new project **and** relocation.  
Recommend how the business might raise the finance needed, using relevant accounting ratios to help you. [12]
- (e) If the Autotrak project is successful, the business will grow quickly. Suggest and justify an appropriate organisational structure for Oriental Engineering Ltd. if this happens. [10]