

This paper has 3 pages  
(including this coversheet)

THE UNIVERSITY OF MELBOURNE

MELBOURNE BUSINESS SCHOOL

**MANAGERIAL ECONOMICS (FT A)**

**Associate Professor Vivek Chaudhri**

Final Exam: 29/04/2000

Reading & Noting Time: 15 minutes

Exam Duration: 2 hours

**THIS IS AN OPEN BOOK EXAMINATION**

1. During the reading time, candidates may make notes on the exam paper but may not write in their script books.
2. Candidates may not remove this question paper from the examination venue.
3. Calculators may be used during the examination.
4. Answer 2 of the 3 possible questions.
5. The total marks for this exam add to 60 (allocate your time accordingly).
6. This paper comprises 60% of the total marks in this subject.
7. GOOD LUCK!

## Short Answer Questions (60 marks)

Answer 2 out of the following 3 questions . **DO NOT ANSWER ALL 3!** Answer in the booklet provided. Each question is worth 30 marks.

### QUESTION 1:

(30 marks) You have been asked by CIVIC VIDEO to provide a recommendation on the capacity (stock) and pricing decision of DVDs for all their stores. Assume all CIVIC stores stock and price identically, and that the only existing competition in the video rental market is VIDEO EZY. Provide analysis supporting your recommendations. Detail your assumptions carefully.

### QUESTION 2:

According to a spokesman for cereal maker Kellogg, "...for the past several years, our individual company growth has come out of the other fellow's hide " (1979)

- a) (5 marks) What implications does this statement have for the level of advertising in the cereal industry?
- b) (5 marks) Suppose the static advertising game between Kellogg and its main competitor, General Mills, is as described below. What is the Nash equilibrium of this game?

		General Mills	
		Advertise	Don't Advertise
Kellogg	Advertise	4,4	20,1
	Don't	1,20	10,10

- c) (5 marks) Explain how a trigger strategy, (where if either firm deviates from the cooperative outcome, they play aggressive forever more), can be used to support the collusive level of advertising in an infinitely repeated game. How does this compare to the tit-for-tat strategy?
- d) (8 marks) For what values of the interest rate (discount rate) can collusion be sustained?
- e) (7 marks) What other means might players in the breakfast cereal industry use to facilitate "cooperative" behaviour?

### QUESTION 3:

You are a manager in a perfectly competitive market. The price in the market is \$20. Your costs are represented by  $TC = 8 + 2Q + .5 Q^2$ , hence,  $MC = 2 + Q$  and  $ATC = 8/Q + 2 + .5Q$ .

- a) (2 marks) What is your firm's added value?
- b) (5 marks) What level of output should you produce in the short run?
- c) (3 marks) Will you make any profits in the short run?
- d) (10 marks) Explain using demand and supply analysis what happens in the long run. What is the long-run market price and your equilibrium quantity of output?
- e) (5 marks) Suppose a change in consumer preferences forces the market price down to \$4. How would you respond in the short run? In the long run? What do your answers depend on?
- f) (5 marks) Briefly explain under what conditions the model of perfect competition is an inadequate descriptor of market forces, even if there exist many buyers and many sellers.