

Econ5026 – Strategic Business Relationships.

Midterm – 19 September 2018

Answer all questions in the answer booklets provided.

Time allowed: 1 hour 20 minutes (80 minutes).

Students are allowed to use non-programmable calculators.

Written answers should be done in pen, however diagrams may be drawn in pencil.

In your answers please show all working.

NOTE THAT THE EXAM IS WORTH 50 MARKS IN TOTAL. TAKE CARE TO NOTE HOW MANY MARKS ARE ALLOCATED FOR EACH QUESTION AND ALLOCATE YOUR TIME ACCORDINGLY.

Student number: _____

1. 5 marks

- (i) Describe what is meant by transaction costs. Give some examples of transaction costs and describe how transaction costs help explain the existence and boundaries of firms.

2. 3 marks

- (i) Identify at least four advantages that an incumbent in an industry might have and which provide a barrier to entry for potential entrants. How do these advantages provide a barrier to entry.

3. 7 marks

- (i) Describe how repeated interaction between players in a game might help resolve problems associated with a non-cooperative outcome that does not maximise total surplus.

4. 6 marks in total

- (i) In a Bertrand model of competition when firms produce identical products, describe what the market outcome looks like. Explain. (2 marks)
- (ii). Describe what is meant by a reaction function. Draw the reaction functions for firms in a Bertrand model with differentiated products. Describe what would happen if one of the firms in this market made a soft commitment. Discuss the direct and indirect or strategic impact of a soft commitment and why it is important for understanding whether to make a commitment. (4 marks)

5. 6 marks.

Suppose that we have two restaurants located at either end of a road that is 100 kilometers long. Gertrude's German restaurant is located at kilometer zero, and Shino's Sushi Bar is located at kilometer 100. In each case the location of the firm is fixed and the only choice they have is over price. There are 100 consumers spaced equally along the road. Assume that for customers the cost of travelling each kilometer is \$2.

If meals at Gertrudes cost \$20, and meals at Shinos cost \$40, where will the marginal consumer be located?

Assume now that Gertrudes begins to use a new delivery service called Foodtoyou. For customers of Gertrude's, the cost of delivery is \$1 for every kilometer. Where is the marginal customer located now? Explain.

6. 8 marks

Consider two competing television networks (Foxtel and SportsTV) that are trying to win over audiences. The firms have two strategies available to them in terms of advertising, they advertise a high amount or a low amount. The payoffs for each of the networks is shown in the payoff matrix below.

		SportsTV	
		Low	High
<i>Foxtel</i>	<i>Low</i>	(60, -60)	(-60, 60)
	<i>High</i>	(-60, 60)	(60, -60)

Find any Nash Equilibrium (or Nash Equilibria) in this game if the players make their choices simultaneously.

Suppose that SportsTV decides that they will choose a low strategy once every three weeks, and the other two weeks choose a high strategy. Find the payoff for Foxtel if they always choose a low strategy. Find the payoff for Foxtel if they always choose to play High. Is the choice of SportsTv a Nash Equilibrium? Why? Can you identify the Nash Equilibrium?

Suppose that following a change in the way that Foxtel decides to advertise, they now make their choice after SportsTV. Draw the game tree and find the Nash Equilibrium of this game. Does SportsTV have a first mover advantage? Explain.

7. 8 marks.

(a) Describe what is required to practice first, second and third degree price discrimination. Give one example of each type of price discrimination.

(b) Consider the following valuations placed on two different versions of a movie (HD and low definition) that can downloaded from Apple TV by pensioners and students. Assume that buyers purchase one version of the movie and choose the version that provides the highest consumer surplus.

	High definition	Low definition
<i>Pensioners</i>	12.50	9.50
<i>Students</i>	8.00	6.00

Assume that the cost of producing and selling a movie is \$1 for both the high and low definition versions. Suppose that initially Apple can verify who is buying the movie by asking for buyers to identify themselves using a concession card (student or pensioner) number. If so, what is the optimal pricing strategy for Apple and what are its profits?

Following a recent High Court associated that dealt with privacy over the internet, assume that it is no longer possible for Apple to ask buyers to identify themselves using their concession cards. What is the optimal pricing strategy now and what are the profits of Apple equal to?

8. 7 marks.

The producers of the Book of Mormon, a popular stage show have teamed up with a nearby restaurant to offer meal and show packages. Assume that the cost of producing the meal and the stage show are zero. Further, assume that there are three types of consumers (A, B and C) each of whom place the following valuation on the stage show and a restaurant meal.

	Meal	Stage Show
<i>A</i>	60	50
<i>B</i>	50	125
<i>C</i>	25	140

What are profits if the charge for the restaurant meal is \$25 and \$50 for the stage show?

If there is no bundling, is there a set of prices that generates higher profits?

What are profits equal to if a bundle (which includes a meal and a ticket to the show) is priced at \$110? Will this price of the bundle maximise profits? Why?

If the firm adopts a mixed bundling strategy, what price should it set the bundle at, and what price should it set the individual prices of the meal and stage show to maximise profits?