Economics 380: Midterm 2

16 November, 2006

This test is open book. It is marked out of 100. You have 60 minutes. Good luck.

1. [35] Suppose two Bertrand competitors face demand $p = 1 - q$. These firms play the game an infinite number of times and have common discount rate $\delta = 3/4$. The firms play the following strategy:
(i) If no-one has deviated then set price equal to the monopoly price. Both firms get half the monopoly profits, $\pi^M/2$.
(ii) If anyone deviates then play the Nash equilibrium for K periods. After that, the firms return to the strategy in (i).

(a) Suppose $K = 1$. Will the firms wish to deviate from the monopoly price?
(b) Suppose $K = 2$. Will the firms wish to deviate from the monopoly price?

2. [35] Suppose the product space is defined by a circle (rather than the Hotelling line). Customers are uniformly spread around the edge of the circle and have sufficiently high valuations that they always buy the product. Two firms, A and B, then consider locating somewhere around the circle.[1]
(a) Suppose the firms wish to maximally differentiate themselves, where would they locate?
Now suppose A moves slightly closer to B.
(b) Intuitively, what effect will this move have on the firms' market share?
(c) Intuitively, what effect will this move have on firms' prices?
(d) What effect will this move have on A's profits? Is this move a good idea for A?

3. [30] Consider the Enron case from last week's assignment.
(a) If one just looks at Enron's accounts, why does Enron's collapse seem puzzling?
(b) Why was trust important for Enron?
(c) Name three other industries where trust is important. Explain why. [Note: more credit will be given for novel answers].

[1] For example, you can imagine two coffee shops locating around UTM's outer circle road.