Quiz #7 - Economics 101 - Section 5
April 13, 2004

Last Name: ____________________ First Name: ____________________

Student Number: ______________

Instructions: Fill in your name and student number as indicated above. Complete all questions in the space provided on the sheet. The exam is out of 12 total points, 1 point for correctly entering your name and student number and 1 point for each correct response.

Quiz #7

Completion

Complete each sentence or statement.

1. What are the three market characteristics of monopolistic competition?
   1) Many **Buyers and Sellers**
   2) **Free (easy) Entry and Exit**
   3) **Differentiated Product**

Which characteristic differs from the three characteristics of perfect competition?
   **Differentiated Product**

2. On the following graph representing a firm in a market characterized by monopolistic competition indicate i) the price the firm would charge, and ii) what quantity would be supplied by the firm.
3. The next 5 questions make use of the following payoff matrix.

Suppose Bill and Cathy each own one firm that produces doughnuts in Ames. These are the only two firms in Ames that produce doughnuts. Bill and Cathy realize that if they work together then they can coordinate and cooperate with each other to earn higher profits by restricting the total number of doughnuts on the market. When they produce they have two choices 1) cooperate, and 2) deviate and produce more doughnuts than under their cooperative agreement. The cells in the payoff matrix represent thousands of dollars and the payoffs correspond to (Bills profit, Cathys profit) (i.e. if Bill cooperates and Cathy deviates Bill gets $1,000 and Cathy gets $10,000).

<table>
<thead>
<tr>
<th></th>
<th>Cathy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cooperate</td>
</tr>
<tr>
<td>Bill</td>
<td></td>
</tr>
<tr>
<td>Cooperate</td>
<td>(7,7)</td>
</tr>
<tr>
<td>Deviate</td>
<td>(10,1)</td>
</tr>
</tbody>
</table>

i) What is Cathys best response if she knows that Bill is going to deviate? Deviate

ii) What is Cathys best response if she knows that Bill is going to cooperate? Deviate

iii) What option will maximize Bill plus Cathys profit (i.e. the sum of both their payoffs)?

Both Cooperate 7+7 = 14

iv) What will be the total profit for the two (i.e. Bill plus Cathys profit) if they both deviate?

Both Deviate 2+2 = 4

v) If this game were played once and all Bill or Cathy care about is maximizing their own profit what would the outcome of this game be? Deviate for Both.