FORM A

Use the following to answer questions (1) and (2): A and B are playing the game depicted below. In this game, A makes the first move, choosing between strategy 1 or strategy 2. If A selects strategy 1, B must then move, choosing between strategies 1 and 2. If A selects strategy 2, B must then move, choosing between strategies 1, C, and R. The payoffs are listed at the bottom of the game tree, with A’s payoffs listed first and B’s payoffs listed second. Both players have complete information.

[1] The game illustrated is an example of a dynamic game.

A. True
B. False

[2] Using backwards induction, A is most likely to receive a payoff of ___.

A. 100
B. 50
C. 55
D. 70

[3] In the spatial product differentiation game discussed in class, the Nash Equilibrium coincides with:

A. both firms choosing to locate at opposite ends of the town.
B. one firm charging a higher price than the other firm.
C. the principle of maximum differentiation.
D. both firms choosing to locate right next to each other.

[4] Consider two industry designations: Footware and Ballet Slippers. Note that footwear refers to a multitude of products (including ballet slippers, athletic shoes, dress shoes, work boots, etc.). Accordingly, the North American Industrial Classification System (NAICS), with codes ranging from 2 to 6 digits in length, assigns a greater number of digits to the ballet slippers industry than to the footwear industry.

A. True
B. False

[5] Games consist of:

A. rules
B. strategies
C. payoffs
D. all of the above
A properly defined market should include all firms which do not compete with one another and exclude all firms which do compete with one another.

A. True  
B. False  

Consider the following game to answer questions (7) through (10): Two players (1 and 2) must simultaneously select their strategies according to the following payoff matrix:

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.</strong></td>
<td>8,3</td>
<td>0,4</td>
<td>4,3</td>
</tr>
<tr>
<td><strong>B.</strong></td>
<td>4,2</td>
<td>1,5</td>
<td>5,3</td>
</tr>
<tr>
<td><strong>C.</strong></td>
<td>3,7</td>
<td>0,1</td>
<td>2,0</td>
</tr>
</tbody>
</table>

Note: Player 1's payoffs are listed first, while player 2's payoffs are listed second.

[7] If player 1 selects A, then player 2's best response is to select Y.

A. True  
B. False

[8] The strictly dominant strategy for player 2:

A. is to choose X.  
B. is to choose Y.  
C. is to choose Z.  
D. does not exist.

[9] This game has ___ Nash equilibria.

A. one  
B. two  
C. three  
D. zero

[10] This game can be solved using iterated elimination of dominated strategies.

A. True  
B. False
A properly defined market should include all firms which do compete with one another and exclude all firms which do not compete with one another.

A. True
B. False

Consider the following game to answer questions (3) through (6): Two players (1 and 2) must simultaneously select their strategies according to the following payoff matrix:

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A:</td>
<td>8, 3</td>
<td>0, 4</td>
<td>4, 3</td>
</tr>
<tr>
<td>B:</td>
<td>4, 2</td>
<td>1, 5</td>
<td>5, 3</td>
</tr>
<tr>
<td>C:</td>
<td>3, 7</td>
<td>0, 1</td>
<td>2, 0</td>
</tr>
<tr>
<td>Player 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Player 1’s payoffs are listed 1st, while player 2’s payoffs are listed 2nd.

[3] If player 1 selects C, then player 2’s best response is to select Y.

A. True
B. False

[4] The strictly dominant strategy for player 2:

A. is to choose X.
B. is to choose Y.
C. is to choose Z.
D. does not exist.

[5] This game has ___ Nash equilibria.

A. one
B. two
C. three
D. zero

[6] This game can be solved using iterated elimination of dominated strategies.

A. True
B. False
Use the following to answer questions (7) and (8): A and B are playing the game depicted below. In this game, A makes the first move, choosing between strategy 1 or strategy 2. If A selects strategy 1, B must then move, choosing between strategies 1 and 2. If A selects strategy 2, B must then move, choosing between strategies L, C, and R. The payoffs are listed at the bottom of the game tree, with A’s payoffs listed first and B’s payoffs listed second. Both players have complete information.

[7] The game illustrated is an example of a dynamic game.

A. True
B. False

[8] Using backwards induction, A is most likely to receive a payoff of ___.

A. 100
B. 50
C. 55
D. 70

[9] In the spatial product differentiation game discussed in class, the Nash Equilibrium coincides with:

A. both firms choosing to locate at opposite ends of the town.
B. one firm charging a higher price than the other firm.
C. the principle of maximum differentiation.
D. both firms choosing to locate right next to each other.

[10] Consider two industry designations: Footware and Ballet Slippers. Note that footware refers to a multitude of products (including ballet slippers, athletic shoes, dress shoes, work boots, etc.). Accordingly, the North American Industrial Classification System (NAICS), with codes ranging from 2 to 6 digits in length, assigns a greater number of digits to the footware industry than to the ballet slippers industry.

A. True
B. False