Sample Exam Questions/Chapter 17

1. An individual is *more* likely to be a free rider when a good is:
   A) private.
   B) nonexcludable.
   C) nonrival.
   D) artificially scarce.

Use the following to answer questions 2-3:

<table>
<thead>
<tr>
<th>Quantity of Streetlights in the Neighborhood</th>
<th>Dave’s Individual Marginal Benefit</th>
<th>Art’s Individual Marginal Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>$15</td>
<td>$20</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

2. (Table: Marginal Benefit from Additional Streetlights) Dave and Art live in a new housing development and would like to have streetlights installed. The table Marginal Benefit from Additional Streetlights shows Dave's and Art's individual marginal benefit of different numbers of streetlights. Suppose that the marginal cost of installing a streetlight is $6. What is the maximum that Art would be willing to pay to have one streetlight installed in the neighborhood?
   A) $20
   B) $15
   C) $35
   D) $5

3. (Table: Marginal Benefit from Additional Streetlights) Dave and Art live in a new housing development and would like to have streetlights installed. The table Marginal Benefit from Additional Streetlights shows Dave's and Art's individual marginal benefit of different numbers of streetlights. Suppose that the marginal cost of installing a streetlight is $6. What is the socially optimal number of streetlights in the neighborhood?
   A) 1
   B) 2
   C) 3
   D) 4
4. Which of the following is the best example of a good whose consumption is not excludable?
   A) clothing
   B) ice cream
   C) a taco
   D) national defense

Use the following to answer question 5:

<table>
<thead>
<tr>
<th>Quantity of Security Guards</th>
<th>Total Cost</th>
<th>Total Individual Benefit to Each Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>1</td>
<td>150</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>300</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>450</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>600</td>
<td>19</td>
</tr>
</tbody>
</table>

5. (Table: Security in a Residential Community) The table Security in a Residential Community shows the total cost of hiring a 24-hour security service in a community of 100 residents and each individual resident's total benefit from the service. The efficient number of security guards is ________.
   A) 0
   B) 2
   C) 3
   D) 4

6. Which of the following statements is true?
   A) It is possible to observe how much people benefit from consuming an additional unit of a public good.
   B) It is difficult to get an accurate estimate of the marginal social benefits of public goods because individuals have an incentive to distort the truth about their willingness to pay.
   C) Individuals tend to underestimate the amount of a public good that they desire.
   D) It is straightforward to estimate the marginal social benefits of public goods.
7. (Figure: Market Failure) Look at the figure Market Failure. Suppose the supply curve represents the marginal cost of providing street lights in a neighborhood that is composed of two people, Ann and Joe. The demand curve represents the marginal benefit that Ann receives from the street lights. Suppose that Joe's marginal benefit from the street lights is a constant amount equal to $AC$. The marginal social benefit of $F$ street lights is

A) 0
B) $B$
C) less than $B$
D) greater than $B$

8. If the market produces an efficient level of a good, then we know that the good must be ______ and ______ in consumption.
   A) nonexcludable; nonrival
   B) nonexcludable; rival
   C) excludable; nonrival
   D) excludable; rival

9. The encouragement to voluntarily contribute to the provision of goods:
   A) will always lead to the socially optimal provision of public goods.
   B) may lead to the provision of public goods.
   C) will result in too much of the public good being provided.
   D) is required to provide private goods.
10. A key element that a public good displays is:
   A) overproduction.
   B) rival consumption.
   C) payment through charitable contributions.
   D) nonexclusion.

11. If left to the private market, the amount of fire protection provided in a city would be
    ________ than it is now, and free riders would pay ________ for fire protection.
    A) greater; more
    B) greater; nothing
    C) lower; nothing
    D) lower; a higher price

12. National defense and clean air are similar in that both are ________, but they differ in
    that national defense is ________ while clean air is not.
    A) rival in consumption; excludable
    B) nonrival in consumption; excludable
    C) excludable; rival in consumption
    D) nonexcludable; nonrival in consumption
Answer Key

1. B
2. A
3. C
4. D
5. C
6. B
7. D
8. D
9. B
10. D
11. C
12. D