

Microeconomics, Price discrimination, final exam practice problems

(The attached PDF file has better formatting.)

\*Question 1.1: Football Parties

At the Harvard-Yale weekend, both football teams have beer parties.

- At the Harvard party, a cup of beer costs \$2 for men and \$1 for women.
- At the Yale party, beer costs \$2 for the first cup and \$1 for the second cup.

Assume that both pricing systems for beer are price discrimination. What type of price discrimination is each?

	<i>Harvard</i>	<i>Yale</i>
<i>A</i>	<i>First Degree</i>	<i>Second Degree</i>
<i>B</i>	<i>Second Degree</i>	<i>First Degree</i>
<i>C</i>	<i>First Degree</i>	<i>Third Degree</i>
<i>D</i>	<i>Third Degree</i>	<i>Second Degree</i>
<i>E</i>	<i>Second Degree</i>	<i>Third Degree</i>

Answer 1.1: D

*Harvard Party*: Third degree price discrimination prices according to the elasticity:

- ~ Men value beer more and are less likely to be deterred by a high price. They have a low price elasticity of demand for beer, so they are charged more.
- ~ Women value beer less, and are more likely to be deterred by a high price. They have a high price elasticity of demand for beer, so they are charged less.

*Yale Party*: second degree price discrimination prices according to the portion:

By decreasing marginal utility, people are willing to pay more for their first cup than their second cup.

\*Question 1.2: Third Degree Price Discrimination

Third degree price discrimination entails dividing a market into two segments where

- A. Consumers have different wealth.
- B. Consumers have different knowledge.
- C. Consumers have different marginal costs.
- D. Consumers have different price elasticity of demand.

E. Consumers have different price elasticity of supply.

Answer 1.2: D

Different incomes often lead to different price elasticities of demand, but the important item is the price elasticity of demand, not the income. Marginal cost and price elasticity of supply relate to the producer, not the consumer.

\*Question 1.3: Third Degree Price Discrimination

Which of the following is true regarding third degree price discrimination? Assume higher means higher than or equal to; lower means lower than or equal to.

- A. Producers' surplus is higher than with no price discrimination.
- B. Prices are higher for all consumers than with no price discrimination.
- C. Producers' surplus is lower than with no price discrimination.
- D. Prices are lower for all consumers than with no price discrimination.
- E. Producers' surplus is the same as with no price discrimination.

Answer 1.3: A

*Statement A:* If producers' surplus were lower, they would not discriminate in prices.

\*Question 1.4: Price Discrimination

Furniture stores often set prices higher than the competitive level and allow their sales personnel to offer discounts to customers depending on their perceptions of a customer's willingness to pay. This pricing strategy is an attempt to implement

- A. First degree price discrimination
- B. Second degree price discrimination
- C. Third degree price discrimination
- D. A two-part tariff
- E. Cartel pricing

Answer 1.4: A

First degree price discrimination is charging the consumer the maximum that he or she is willing to pay for the goods. A sales person who charges each consumer the maximum that he or she will pay is practicing first degree price discrimination.

\*Question 1.5: Pricing Strategies and Social Gain

Which of the following pricing strategies might not increase social gain when implemented by a profit-maximizing monopolist?

- A. First degree price discrimination
- B. Second degree price discrimination
- C. Third degree price discrimination
- D. A two-part tariff
- E. Expense reductions lowering marginal cost

Answer 1.5: C

Third degree price discrimination may either increase or decrease the quantity produced, thereby increasing or decreasing social gain.

\*Question 1.6: Consumers' Surplus and Producers' Surplus

Which of the following is true regarding third degree price discrimination?

- A. Third degree price discrimination increases consumers' surplus.
- B. Third degree price discrimination decreases consumers' surplus.
- C. Third degree price discrimination increases producers' surplus.
- D. Third degree price discrimination decreases producers' surplus.
- E. None of A, B, C, or D is true.

Answer 1.6: C

The monopolist seeks to increase its surplus. The effect on consumers' surplus is ambiguous; consumers' surplus may increase or decrease.

\*Question 1.7: Price and Quantity in Third Degree Price Discrimination

Which of the following is true regarding price and quantity in third degree price discrimination?

- A. Prices are higher for all consumers than without price discrimination.
- B. Prices are lower for all consumers than without price discrimination.
- C. Total quantity is always higher than without price discrimination.
- D. Total quantity is always lower than without price discrimination.
- E. None of A, B, C, or D is true.

Answer 1.7: E

Prices may be higher or lower for different consumers. Total quantity is usually higher, but sometimes it does not change.

\*Question 1.8: Requirements for Third Degree Price Discrimination

All but which of the following are requirements for third degree price discrimination?

- A. The producer must have monopoly power.
- B. Consumers are not able to resell goods to each other.
- C. The producer can differentiate consumers by their price elasticity of demand.
- D. The consumers are not aware of the prices in the markets for other consumers.
- E. All of A, B, C, and D are true.

Answer 1.8: D

*Statement A:* In a perfectly competitive market, producers are price takers. They charge the price at the intersection of the industry supply and demand curves. If any producer charges a higher price, it loses its market share.

*Statement B:* Third degree price discrimination is most common in transportation and admission to movies or cultural events, for which resale is not possible. It is almost never used for sales of durable goods, which can be resold. Consumers know that prices are different for seniors, students, and other consumers.

*Statement C:* Third degree price discrimination charges different prices to consumers with different elasticities. The producer does not know the elasticity of each consumer, but it can differentiate among groups with different average elasticities, such as adults vs teenagers.

*Statement D:* Prices are public knowledge. Consumers know the prices charged to others. If they can not resell the product, this knowledge is of no help.

\*Question 1.9: Dead Weight Loss

Which of the following is true regarding the dead weight loss from price discrimination?

- A. First degree price discrimination leads to zero dead weight loss.
- B. Second degree price discrimination leads to zero dead weight loss.
- C. Third degree price discrimination leads to zero dead weight loss.
- D. Price discrimination never leads to zero dead weight loss.
- E. None of A, B, C, or D is true.

Answer 1.9: A

With first degree price discrimination, the monopolist captures all the social gains, but there is no dead weight loss.