## sample test 3 - spring 2013

## Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

1. A natural monopoly occurs when
a. the product is sold in its natural state (such as water or diamonds).
b. there are economies of scale over the relevant range of output.
c. the firm is characterized by a rising marginal cost curve.
d. production requires the use of free natural resources, such as water or air.
$\qquad$ 2. For a profit-maximizing monopolist,
a. $\quad \mathrm{P}>\mathrm{MR}=\mathrm{MC}$.
b. $\mathrm{P}=\mathrm{MR}=\mathrm{MC}$.
c. $\mathrm{P}>\mathrm{MR}>\mathrm{MC}$.
d. $\mathrm{MR}<\mathrm{MC}<\mathrm{P}$.

## Figure 15-3

The figure below illustrates the cost and revenue structure for a monopoly firm.

3. Refer to Figure 15-3. A profit-maximizing monopoly's total revenue is equal to
a. $P_{3} \times Q_{2}$.
b. $\mathrm{P}_{2} \times \mathrm{Q}_{4}$.
c. $\left(P_{3}-P_{0}\right) \times Q_{2}$.
d. $\left(P_{3}-P_{0}\right) \times Q_{4}$.
4. Refer to Figure 15-3. A profit-maximizing monopoly's total cost is equal to
a. $\left(\mathrm{P}_{1}-\mathrm{P}_{0}\right) \times \mathrm{Q}_{2}$.
b. $\mathrm{P}_{0} \times \mathrm{Q}_{1}$.
c. $\mathrm{P}_{0} \times \mathrm{Q}_{2}$.
d. $\mathrm{P}_{0} \times \mathrm{Q}_{3}$.
5. If a monopolist is able to perfectly price discriminate,
a. consumer surplus is always increased.
b. total surplus is always decreased.
c. consumer surplus and deadweight losses are transformed into monopoly profits.
d. the price effect dominates the output effect on monopoly revenue.

Figure 15-7
The figure below depicts the demand, marginal revenue, and marginal cost curves of a profit-maximizing monopolist.

6. Refer to Figure 15-7. If the monopoly firm is NOT allowed to price discriminate, then consumer surplus amounts to
a. $\$ 0$.
b. $\$ 500$.
c. $\$ 1,000$.
d. $\$ 2,000$.
7. If firms in a monopolistically competitive market are earning positive profits, then
a. firms will likely be subject to regulation.
b. barriers to entry will be strengthened.
c. some firms must exit the market.
d. new firms will enter the market.
$\qquad$ 8. In the study done by Lee Benham on advertising for eyeglasses,
a. advertising increased the average price.
b. advertising decreased the average price.
c. there was no difference in price, but quality was better in the states that didn't allow advertising.
d. advertising appeared to have no effect whatsoever in the states that permitted advertising.
9. Firms that spend a large amount of money on advertising a particular product are likely to be providing consumers with
a. information about the availability of the product.
b. information about product price.
c. a signal of product quality.
d. a good example of wasted resources.
10. Eunice consumes Coke exclusively. She claims that there is a clear taste difference and that competing brands of cola leave an unsavory residual taste in her mouth. However, in a blind taste test, Eunice is found to prefer generic store-brand cola to Coke eight out of ten times. The results of Eunice's taste test would reinforce claims by critics of brand names that
a. consumers are always willing to pay more for brand names.
b. brand names cause consumers to perceive differences that do not really exist.
c. brand names cause consumers to be more sensitive to product differences.
d. brand names are a form of socially efficient advertising.

## Table 16-3

The information in the table below shows the total demand for premium-channel digital cable TV subscriptions in a small urban market. Assume that each digital cable TV operator pays a fixed cost of $\$ 100,000$ (per year) to provide premium digital channels in the market area and that the marginal cost of providing the premium channel service to a household is zero.

| Quantity | Price (per year) |
| :---: | :---: |
| 0 | $\$ 120$ |
| 3,000 | $\$ 100$ |
| 6,000 | $\$ 80$ |
| 9,000 | $\$ 60$ |
| 12,000 | $\$ 40$ |
| 15,000 | $\$ 20$ |
| 18,000 | $\$ 0$ |

11. Refer to Table 16-3. Assume that there are two digital cable TV companies operating in this market. If they are able to collude on the price and quantity of subscriptions to sell, what price ( P ) will they charge, and how many subscriptions $(\mathrm{Q})$ will they sell collectively?
a. $\quad \mathrm{P}=\$ 40, \mathrm{Q}=12,000$
b. $\quad P=\$ 60, Q=9,000$
c. $\quad P=\$ 80, Q=6,000$
d. $P=\$ 100, Q=3,000$
12. Refer to Table 16-3. Assume that there are two profit-maximizing digital cable TV companies operating in this market. Further assume that they are not able to collude on the price and quantity of premium digital channel subscriptions to sell. How many premium digital channel cable TV subscriptions will be sold altogether when this market reaches a Nash equilibrium?
a. 3,000
b. 6,000
c. 9,000
d. 12,000

## Table 16-8

Two cigarette manufacturers (Firm A and Firm B) are faced with lawsuits from states to recover the healthcare related expenses associated with cigarette smoking. Both cigarette firms have evidence that indicates that cigarette smoke causes lung cancer (and other related illnesses). State prosecutors do not have access to the same data used by cigarette manufacturers and thus will have difficulty recovering full costs without the help of at least one cigarette firm study. Each firm has been presented with an opportunity to lower its liability in the suit if it cooperates with attorneys representing the states.

Firm B
Concede that cigarette smoke

Argue that there is no evidence that smoke causes cancer causes lung cancer
Concede that cigarette smoke

Firm A causes lung cancer Argue that there is no evidence that smoke causes cancer

| Firm A profit $=\$-20$ |  |
| :---: | :---: |
| Firm B profit $=\$-15$ | Firm A profit $=\$-50$ <br> Firm B profit $=\$-5$ |
| Firm A profit $=\$-5$ | Firm A profit $=\$-10$ |
| Firm B profit $=\$-50$ | Firm B profit $=\$-10$ |

13. Refer to Table 16-8. Pursuing its own best interests, Firm A will concede that cigarette smoke causes lung cancer
a. only if Firm B concedes that cigarette smoke causes lung cancer.
b. only if Firm B does not concede that cigarette smoke causes lung cancer.
c. regardless of whether Firm B concedes that cigarette smoke causes lung cancer.
d. None of the above. In pursuing its own best interests, Firm A will in no case concede that cigarette smoke causes lung cancer.
14. Refer to Table 16-8. If both firms follow a dominant strategy, Firm A's profits (losses) will be
a. $\$-50$
b. \$-20
c. \$-10
d. \$-5
15. The profit-maximizing rule for a firm in a monopolistically competitive market is to always select the quantity at which
a. marginal revenue is equal to marginal cost.
b. average total cost is equal to marginal revenue.
c. average total cost is equal to price.
d. average revenue exceeds average total cost.
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Answer Section

## MULTIPLE CHOICE

1. ANS: B
2. ANS: A
3. ANS: A
4. ANS: C
5. ANS: C
6. ANS: C
7. ANS: D
8. ANS: B
9. ANS: C
10. ANS: B
11. ANS: B
12. ANS: D
13. ANS: D
14. ANS: C
15. ANS: A

REF: 15-1
REF: 15-2
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REF: 17-2
REF: 16-2
REF: 16-2
REF: 16-3
REF: 16-3
REF: 17-1

Natural monopoly
Profit maximization
Total revenue
Total cost
Perfect price discrimination
Consumer surplus
Long-run equilibrium
Advertising
Advertising
Advertising
Cartels
Nash equilibrium
Game theory
Game theory
Profit maximization

