Name:___________________________________
Third Midterm Examination – Bonus Questions
Economics 101

Unless a question explicitly says otherwise, assume that all market demand curves slope downward and all supply curves slope upward, there are no externalities, and firms are unable to price discriminate.

For all questions, mark the best answer.

True/False

1) For a firm facing a downward-sloping demand curve for its product, the marginal revenue is less than the price of the product because, when output is expanded, existing buyers would have paid a higher price.

a. True
b. False

2) How will the diagram of a single-price monopolist change if it becomes a perfect price-discriminating monopolist?

a. Its marginal revenue curve will now coincide with its demand curve
b. Its demand curve will become horizontal
c. Its marginal revenue curve will become horizontal
d. Its marginal revenue curve will now coincide with its marginal cost curve.
e. Its marginal revenue curve will not change.

3) Martha and Oleg are competitors in a local market and each is trying to decide if it is worthwhile to advertise. If both of them advertise, each will earn a profit of $5,000. If neither of them advertise, each will earn a profit of $10,000. If one advertises and the other doesn't, then the one who advertises will earn a profit of $15,000 and the other will earn $7,000. If both follow their dominant strategy then Martha will:

a. advertise, and she will earn $5,000
b. advertise, and she will earn $15,000
c. not advertise, and she will earn $10,000
d. not advertise, and she will earn $7,000
e. Martha has no dominant strategy

4) A perfectly competitive firm is currently producing 20 units. Its average fixed cost is $10 and its variable costs are $2,400. In order to just break even, the price would need to be:

a. $10
b. $20
c. $100
d. $120
e. $130

5) The information in the table below depicts 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

Assume that there are two digital cable TV companies operating in this market. If they are able to "collude" on price and quantity of subscriptions to sell, what price (P) will they charge, and how many subscriptions (Q) will they collectively sell?

a. P = 0, Q = 18,000
b. P = $40, Q = 12,000
c. P = $60, Q = 4,500
d. P = $60, Q = 9,000
e. P = $80, Q = 6,000

6) A single price monopolist's average revenue is always

a. Equal to marginal revenue
b. Greater than the price of its product
c. Equal to the price of its product
d. Less than the price of its product

7) What is the total dollar value of the deadweight loss due to a profit-maximizing single price monopoly under the following conditions: The monopolist faces a linear, downward sloping demand curve. The firm has a constant marginal cost of $10 per unit, the socially efficient level of production is 40 units, and the profit maximizing price is $30 per unit.

a. $100
b. $150
c. $200
d. $250
e. $400

8) A firm in a perfectly competitive market maximizes profit by producing 150 units of output at a price of $7 per unit. At that quantity, its marginal cost is between its average variable cost and its average total cost. Which of the following is a possible combination of its variable and fixed cost?

a. VC = $1,100; FC = $240
b. VC = $600; FC = $600
c. VC = $600; FC = $400
d. VC = $750; FC = $240
e. VC = $700; FC = $300

9) The movie theater in Collegetown serves two kinds of customers: students and professors. There are 900 students and 100 professors in Collegetown. Each student's willingness to pay for a movie ticket is $5. Each professor's willingness to pay for a movie ticket is $10. Each will buy at most one ticket. The movie theater's marginal cost per ticket is constant at $3, and there are no fixed costs. If the profit maximizing movie theatre can successfully price discriminate between students and professors by requiring students to show their student ID, how much profit will the movie theatre make?

a. $1500
b. $2000
c. $2500
d. $3000
e. $5500

10) Competitive firms differ from monopolies in which of the following ways?

i. Competitive firms do not have to worry about the price effect lowering their total revenue.
ii. Marginal revenue for a competitive firm equals price, while marginal revenue for a monopoly is less than the price it is able to charge.
iii. Monopolies must lower their price in order to sell more of their product, while competitive firms do not.

a. (i) and (ii)
b. (ii) and (iii)
c. (i) and (iii)
d. All of the above are correct

Economics 101
Answer Key: Midterm 3 – Bonus Questions

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