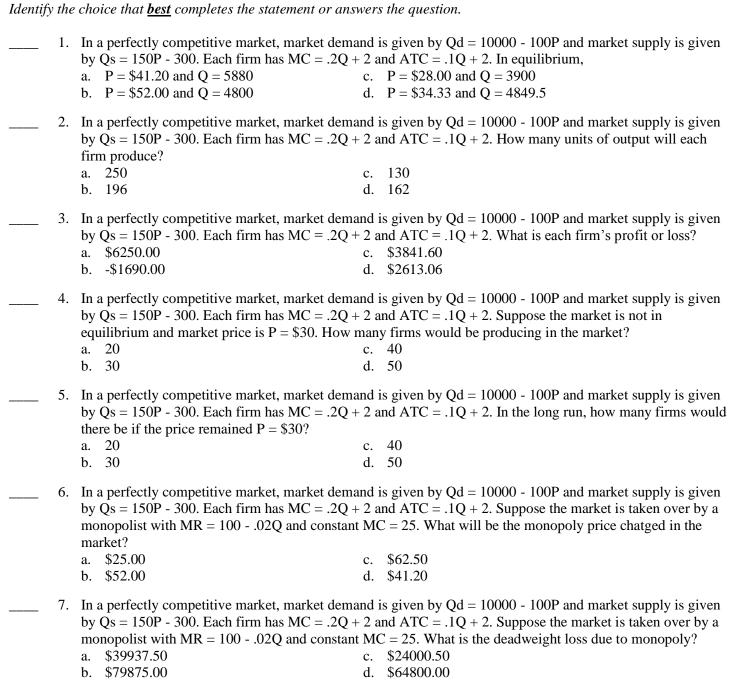Practice Exam: Students suggested afterwards that this exam was difficult for the allotted time. I agree. Your exam will be less rigorous considering the time constraint and will be very fair.

Multiple Choice
Identify the choice that __best__ completes the statement or answers the question.

_____ 1. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. In equilibrium,
   a. P = $41.20 and Q = 5880
   b. P = $52.00 and Q = 4800
   c. P = $28.00 and Q = 3900
   d. P = $34.33 and Q = 4849.5

_____ 2. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. How many units of output will each firm produce?
   a. 250
   b. 196
   c. 130
   d. 162

_____ 3. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. What is each firm's profit or loss?
   a. $6250.00
   b. -$1690.00
   c. $3841.60
   d. $2613.06

_____ 4. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. Suppose the market is not in equilibrium and market price is P = $30. How many firms would be producing in the market?
   a. 20
   b. 30
   c. 40
   d. 50

_____ 5. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. In the long run, how many firms would there be if the price remained P = $30?
   a. 20
   b. 30
   c. 40
   d. 50

_____ 6. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. Suppose the market is taken over by a monopolist with $MR = 100 - .02Q$ and constant $MC = 25$. What will be the monopoly price chatged in the market?
   a. $25.00
   b. $52.00
   c. $62.50
   d. $41.20

_____ 7. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. Suppose the market is taken over by a monopolist with $MR = 100 - .02Q$ and constant $MC = 25$. What is the deadweight loss due to monopoly?
   a. $39937.50
   b. $79875.00
   c. $24000.50
   d. $64800.00

____ 8. In a perfectly competitive market, market demand is given by $Qd = 10000 - 100P$ and market supply is given by $Qs = 150P - 300$. Each firm has $MC = .2Q + 2$ and $ATC = .1Q + 2$. Suppose the market is taken over by a monopolist with $MR = 100 - .02Q$ and constant $MC = 25$. Now consider the possibility that the market became an oligopoly. What might be a possible market price in an oligopoly?
   a. $25.00
   b. $51.00
   c. $62.00
   d. $40.00

Scenario 1. Market demand for cartons of cigarettes is given by the following table. ATC is fixed at $5 per carton.

PRICE in $	QUANTITY
10	200
20	175
30	150
40	125
50	100
60	75
70	50
80	25
90	0

____ 9. *Refer to Scenario 1.* What price level would maximize profit if the market were served by a monopoly?
   a. $30
   b. $50
   c. $40
   d. $60

____ 10. *Refer to Scenario 1.* What is the monopoly profit?
   a. $4500
   b. $5000
   c. $4375
   d. $4750

____ 11. *Refer to Scenario 1.* Suppose there are two firms selling cigarettes, each with ATC = $5 per carton. What is the profit of each team in a Nash Equilibrium?
   a. $2250
   b. $1875
   c. $2000
   d. $1500

Scenario 2. Pens sell for $5 each and markers sell for $3 each. Aaron's total utility for various quantities of each good is given below. His budget is $60.

PENS		MARKERS	
Quantity	TU	Quantity	TU
0	0	0	0
3	39	5	10
6	69	10	40
9	90	15	60
12	105	20	64

____ 12. *Refer to Scenario 2.* What combination of pens and markers will maximize Aaron's total utility given his budget?
   a. 6 pens, 10 markers
   b. 9 pens, 5 markers
   c. 9 pens, 15 markers
   d. 3 pens, 15 markers

____ 13. ***Refer to Scenario 2.*** The marginal rate of substitution at the optimal consumption bundle is:

    a. 2.00   c. 1.67
    b. 1.75   d. 1.33

____ 14. Paula is currently consuming 4 restaurant meals and 3 home-cooked meals per week. A restaurant meal costs $25 and a home-cooked meal costs her $10. Her weekly food budget is $150. Her marginal utility from a restaurant meal is exactly twice the marginal utility she receives from a home-cooked meal. What should Paula do?

    a. Eat at home more because the MU per dollar spent is greater for home-cooked meals.
    c. Eat out more because her marginal utility is higher for restaurant meals.
    b. Continue her current consumption since she is maximizing her total utility.
    d. Increase both types of meals as there is room in her budget to do so.

____ 15. In a competitive market, $Qd = 600 - 7P$ and $Qs = 5P$. Thr government levies a per-unit tax on consumers such that the new, after-tax demand curve is given as $Qd = 565 - 7P$. The amount of the per-unit tax is

    a. $5   c. $25
    b. $35   d. $15

____ 16. In a competitive market, $Qd = 600 - 7P$ and $Qs = 5P$. Thr government levies a per-unit tax on consumers such that the new, after-tax demand curve is given as $Qd = 565 - 7P$. The deadweight loss due to the tax is

    a. $73.00   c. $1250.00
    b. $36.50   d. $1177.00

____ 17. In a competitive market, $Qd = 600 - 7P$ and $Qs = 5P$. Thr government levies a per-unit tax on consumers such that the new, after-tax demand curve is given as $Qd = 565 - 7P$. the change in consumer surplus because of the tax is approximately

    a. loss of $490   c. gain of $73
    b. loss of $505   d. no change because producers lost more

____ 18. Domestic $Qd = 840 - P$ and $Qs = 3P + 40$. The world price is $150. If this country engages in international trade,

    a. consumer surplus = $204,800   c. consumers import 50 units
    b. consumer surplus increases by $33250   d. both a. and c. are correct

____ 19. Demand for labour is given by $Qd = 425 - 30W$ where W is the hourly wage rate. What is the value of the marginal product of labour of the 5th worker hired?

    a. $14   c. $30
    b. $275   d. not enough information given to determine VMPL

____ 20. A firm is considering buying one of two technologies. Technology A has an estimated value of the marginal product of capital of $10000 per year and a lifespan of 5 years; Technology B has an estimated value of the marginal product of capital of $8500 per year and a lifespan of 6 years. The interest rate is constant at 5% annually. Each technology would cost the firm $40000. What should the firm do?

    a. Buy Technology A; it has a higher present value.
    c. Buy Technology B; it has a longer lifespan.
    b. Buy Technology B; it has a higher present value.
    d. Do not buy either technology.

____ 21. A firm faces demand of $Qd = 80 - 5P$. It is considering raising its price from $4 to $5. Ceteris paribus, what should the firm do?

    a. Increase price; demand is elastic and total   c. Decrease price; demand is elastic and total

revenue will increase.

b. Increase price; demand is inelastic and total revenue will increase.

revenue will increase.

d. Keep the price at $4; total revenue is at a maximum since demand is unit elastic.

____ 22. Demand for bachelor apartments is given by Qd = 2000 - 25P. There are currently 300 apartments available. The government enacts a rent control price of $620. A black market results. How much do tenants actually pay for a bachelor apartment?
a. $620
b. $680
c. $650
d. $690

Scenario 3. The following table gives the production possibilities for Ontario and Quebec which each produce fruit and dairy products.

	FRUIT	DAIRY	LABOUR HOURS
Ontario	500	200	8
Quebec	300	600	6

____ 23. *Refer to Scenario 3.* The opportunity cost of producing fruit in Ontario is
a. .4 dairy
b. 2.5 dairy
c. 2 dairy
d. 2.5 fruit

____ 24. *Refer to Scenario 3.* The opportunity cost of producing dairy in Quebec is
a. 2 dairy
b. .4 dairy
c. .5 fruit
d. 2.5 fruit

____ 25. *Refer to Scenario 3.* Which statement is correct?
a. Quebec has comparative advantage in fruit and absolute advantage in fruit.
b. Ontario has absolute advantage in both products.
c. Ontario has comparative advantage in fruit and absolute advantage in fruit.
d. No province has an absolute advantage in either product.

____ 26. *Refer to Scenario 3.* Currently, both Ontario and Quebec are producing and consuming 250 fruit and 100 dairy. They agree to specialize and trade 250 fruit for 250 dairy. After trade,
a. Ontario gains 150 dairy and Quebec gains 250 dairy.
b. Ontario gains 250 dairy and Quebec gains 350 dairy.
c. Ontario gains 200 fruit and Quebec gains 250 fruit.
d. Both provinces gain 250 fruit and 100 dairy.

____ 27. The cross-price elasticity of demand for ketchup and barbeque sauce is 3.2. If the price of ketchup increases by 4%,
a. the price of barbeque sauce increases by 3.2%.
b. the quantity demanded of barbeque sauce increases by 3.2%
c. the quantity demanded of ketchup increases by 12.8%.
d. the quantity demanded of barbeque sauce increases by 12.8%.

____ 28. Supply and demand in a competitive market are bot elastic, but the supply curve is steeper relative to the demand curve. The government levies a $1 per-unit tax on each good sold. Which statement is correct?
a. Firms will bear more than $0.50 of the tax burden.
b. Consumers will bear more than $0.50 of the tax burden.
c. Firms will bear all of the tax burden.
d. Firms and consumers will share the tax burden equally.

____ 29. An export tariff:
    a. decreases producer surplus.
    b. decreases consumer surplus.
    c. increases the world price of a good.
    d. both a. and c. are correct.

____ 30. In a competitive market, long run average total costs are constant regardless of quantity of output produced. Therefore,
    a. firms will continue to enter the market.
    b. firms can never minimize average total costs.
    c. this is a constant cost industry.
    d. both b. and c. are correct.

____ 31. The marginal product of the 10th worker hired by a firm is 0. Average product is 123. Total product is
    a. 1107 units.
    b. maximized at 1107 units.
    c. maximized at 1230 units.
    d. 1230 units

____ 32. A firm is producing such that its ATC = \$8, AVC = \$6 and MC = \$7. Which statement is correct?
    a. ATC is at a minimum.
    b. AVC is at a minimum.
    c. MC is at a minimum.
    d. no costs are at a minimum.

____ 33. The price of milk decreases. The quantity of milk consumed does not change but the quantity of cookies consumed increases. Why?
    a. The income effect was positive and the substitution effect was negative.
    b. The income effect was at least as large as the substitution effect.
    c. The income effect was less than the substitution effect.
    d. Both the income effect and the substitution effect were positive.

____ 34. Marginal product is at a maximum. Which statement is correct?
    a. Total product is at a maximum.
    b. Average variable cost is at a minimum.
    c. Average product is at a maximum.
    d. Marginal cost is at a minimum.

____ 35. The marginal rate of substitution for perfect complements is:
    a. negative.
    b. undefined.
    c. zero.
    d. constant along the indifference curve.

____ 36. In the kinked demand model of oligopoly,
    a. prices are slow to change.
    b. the MR curve is discontinuous at the kink.
    c. the MC curve is discontinuous at the kink.
    d. both a. and b. are correct.

____ 37. An oligopolist is considering changing the level of output of she is currently producing. If the price effect is greater than the output effect, the oligopolist should:
    a. increase output.
    b. decrease output.
    c. leave the output level as it is.
    d. make a strategic decision based on what other firms are doing.

____ 38. A monopolistically competitive firm is currently selling its product at a price of \$12. In long run equilibrium,
    a. average revenue is greater than marginal revenue.
    b. minimum average total cost is less than \$12.
    c. there is a deadweight loss in welfare.
    d. all of the above are correct.

____ 39. In monopolistic competition. if the business-stealing externality exceeds the product-variety externality,
    a. there are not enough firms.
    b. there are too many firms.
    c. consumers are at a disadvantage.
    d. both a. and c. are correct.

40. An increase in the price of good on the Y axis will
    a. rotate the budget constraint up the Y axis.
    c. rotate the budget constraint outward along the X axis.
    b. rotate the budget constraint down the Y axis.
    d. shift the budget constraint toward the origin.

41. Demand in the market for cheese is given by $Qd = 304 - 7.5P$ and supply is given by $Qs = 2P$. Q is kg/day of cheese. The dairy association imposes a quota of 50 kg of cheese per day. What is the quota rent?
    a. $3.87
    c. $25.00
    b. $7.13
    d. $8.87.

42. Public goods are
    a. rival and excludable.
    c. rival and non-excludable.
    b. non-rival and non-excludable.
    d. non-rival and excludable.

43. If the Canadian price of a good is lower than the world price,
    a. Canada has comparative advantage and will export.
    c. The world has comparative advantage and will export.
    b. Canada has comparative advantage and will import.
    d. Canada has absolute advantage and will export.

44. A firm has long run average costs LRAC such that LRAC decreases from 0 to 100 units of output, remains constant for 100 to 300 units of output and increases from 300 units of output or more. An output level of 100 units corresponds to which of the following?
    a. increasing returns to scale
    c. minimum efficient scale
    b. decreasing returns to scale
    d. excess capacity

45. For any firm, profit maximization requires that firms produce output such that
    a. total product is maximized.
    c. marginal revenue equals marginal cost.
    b. total revenue is maximized.
    d. all of the above.

46. For some combination of output of two goods, X and Y, the slope of the production possibilities frontier is -1.75. We know that:
    a. the PPF is bowed outward.
    c. the opportunity cost of X at that point is 1.75Y.
    b. opportunity costs increase as we give up more Y to get more X.
    d. all of the above.

47. Two firms are planning to bid on a contract to build a factory. The lower bid will win the contract. The winner of the contract will be paid the amount they bid; the loser of the contract receives nothing. The Nash Equilibrium outcome is that:
    a. both firms bid high
    c. one firm bids low and one bids high
    b. both firms bid low
    d. none of the above are correct.

48. In a market where a monopolist perfectly price discriminates,
    a. there is no deadweight loss in welfare.
    c. total surplus is maximized.
    b. there is no consumer surplus.
    d. all of the above are correct.

A monopolist surgeon is able to segment his patients into two groups - those needing emergency surgery and those seeking elective surgery. The surgeon can set prices as he sees fit in order to maximize his profits. Which of the following statements is correct?

a. Patients will pay more for emergency surgery.

b. Patients will pay more for elective surgery.

c. Both patient groups will pay the same since the surgeon's costs are the same regardless.

d. Whoever has the more elastic demand for surgery will pay more, regardless of the type of surgery.

50. A monopolist faces market demand given by $P = 160 - Q$. Its $MR = 160 - 2Q$ and its $MC = 3Q$. If the firm can perfectly price discriminate, how much can it add to its producer surplus (compared to when it did not price discriminate)?

a. $128

b. $512

c. $640

d. $3200

MULTIPLE CHOICE

  1. ANS: A   PTS: 1
  2. ANS: B   PTS: 1
  3. ANS: C   PTS: 1
  4. ANS: B   PTS: 1
  5. ANS: D   PTS: 1
  6. ANS: C   PTS: 1
  7. ANS: A   PTS: 1
  8. ANS: B   PTS: 1
  9. ANS: B   PTS: 1
10. ANS: A   PTS: 1
11. ANS: B   PTS: 1
12. ANS: A   PTS: 1
13. ANS: C   PTS: 1
14. ANS: A   PTS: 1
15. ANS: A   PTS: 1
16. ANS: B   PTS: 1
17. ANS: B   PTS: 1
18. ANS: B   PTS: 1
19. ANS: A   PTS: 1
20. ANS: A   PTS: 1
21. ANS: B   PTS: 1
22. ANS: B   PTS: 1
23. ANS: A   PTS: 1
24. ANS: C   PTS: 1
25. ANS: C   PTS: 1
26. ANS: A   PTS: 1
27. ANS: D   PTS: 1
28. ANS: A   PTS: 1
29. ANS: A   PTS: 1
30. ANS: C   PTS: 1
31. ANS: C   PTS: 1
32. ANS: D   PTS: 1
33. ANS: B   PTS: 1
34. ANS: D   PTS: 1
35. ANS: B   PTS: 1
36. ANS: D   PTS: 1
37. ANS: B   PTS: 1
38. ANS: D   PTS: 1
39. ANS: B   PTS: 1
40. ANS: B   PTS: 1
41. ANS: D   PTS: 1

42.	ANS: B	PTS: 1
43.	ANS: A	PTS: 1
44.	ANS: C	PTS: 1
45.	ANS: C	PTS: 1
46.	ANS: C	PTS: 1
47.	ANS: B	PTS: 1
48.	ANS: D	PTS: 1
49.	ANS: A	PTS: 1
50.	ANS: C	PTS: 1