Practice Exam 3: S201 Walker Fall 2009

I. Multiple Choice (3 points each)

1. Which of the following statements about the short-run is **false**?

A. The marginal product of labor may increase or decrease.
B. Average fixed costs decrease as output increases.
C. Total fixed costs are the same regardless of output.
D.* Marginal costs must fall if ATC falls.

2. MC is at its minimum when

A. AVC is at its minimum.
B. AVC is equal to MC.
C.* MP is at its maximum.
D. All of the above are true when MC is at its minimum.

3. The theory behind short run production costs can be narrowed to an assumption that MC is expected to initially fall, but rise at larger levels of output. This assumption follows from:

A. the laws of supply and demand.
B.* the law of diminishing returns.
C. the concept of diseconomies of scale.
D. the law of diminishing marginal utility.

4. Which of the following statements about the short-run is **true**?

A. The marginal product of labor will decrease if wages increase.
B. Average fixed costs increase as marginal product decreases.
C. Total fixed costs decrease if MC decrease.
D. Marginal costs decrease if AVC decrease.
E. * None of the above are true statements.

5. If marginal costs are constant and equal to $20, we can conclude that

A. marginal product is constant.
B. total costs are increasing at a constant rate per unit of output.
C. total variables costs equal $200 at Q = 10.
D.* All of the above are correct conclusions.

Use the table below to answer the next two questions.

Q	$MC	$FC
1	1	3
2	2	3
3	3	3

6. At 3 units of output, ATC is equal to

A. $1.00.
B. $2.00.
C.* $3.00.
D. $4.00.

7. In this particular problem, we know that

A. MP increases at first, but then decreases.
B. MP increases over the entire range of output shown.
C.* MP decreases over the entire range of output shown.
D. MP decreases at first, but then increases.

8. Assume at Q = 100, the MC of the 100th unit is $200, ATC = $10, and AVC = $7. Using this information, at Q = 99

A. total costs equal $20,000, of which fixed costs equal $1,000.
B. total costs equal $9,900, of which fixed costs equal $3,000.
C.* total costs equal $800, of which fixed costs equal $300.
D. total costs equal $1,700, of which fixed costs equal $100.

9. Assume a firm is profit maximizing (or loss minimizing). It currently has TR = $33,000 per week, TFC = $100,000 per week, and TVC = $28,000 per week. Included in TVC are opportunity costs equal to $3,000 per week. This firm

A. should shut down.
B. is making zero economic profits, but accounting profits.
C.* is making both economic losses and accounting losses, but should operate in the SR.
D. is making economic losses, but may be making accounting profits.

10. The table below shows MR and MC for a firm, where TFC = $5.

Q	$MR	$MC
1	10	5
2	8	3
3	1	4
4	0	7

Maximum profits for this firm would be

A.* $5.
B. $10.
C. -$5.
D. -$15.

11. Under perfect competition, the argument is made that the firm faces a demand curve that is _____, while the market faces a demand curve that is _____.

A. perfectly inelastic, perfectly elastic
B. perfectly elastic, perfectly inelastic
C. perfectly inelastic, less than perfectly inelastic
D.* perfectly elastic, less than perfectly elastic

12. In a perfectly competitive market, **at prices above minimum average variable cost**, the firm's short-run supply is found by

A. solving for the production quantity where average total cost is minimized.
B.* finding the production quantity where MR= MC at each possible price.
C. finding the MC curve above minimum average fixed costs.
D. finding the production quantity where MR= market equilibrium price at each possible price.

13. A perfectly competitive's firm short run supply curve would be perfectly elastic if

A.* marginal costs were constant.
B. the marginal cost curve was linear and upward sloping.
C. the marginal cost curve was linear and downward sloping.
D. None of the answers given above are correct.

14. A perfectly competitive firm would have an elasticity of supply of zero if

A.* the marginal cost curve was vertical.
B. the marginal cost curve was horizontal.
C. the marginal cost curve was linear and upward sloping.
D. the marginal cost curve was linear and downward sloping.

15. A perfectly competitive firm is producing 1000 units of output in a market where the price is $50 per unit. At this output, TC = $40,000 and TVC = $30,000. The firm is currently producing a level of output where MC is $20 per unit. This output level maximizes the difference between market price and MC. Assuming this firm wants to maximize total profits, we can conclude that

A.* this firm should increase output.
B. this firm should decrease output.
C. this firm is producing the output level that maximizes profits.
D. this firm should shut down.

16. A single price monopoly is producing an output level of 100 units where MC = $5 and MR = $5. At this output, ATC = $15, AVC = $8, and consumers' limit price is $15. What is the firm's economic profit?

A.* $0
B. $200
C. -$500
D. -$1,000, and the firm should shut down.

17. A single price monopoly is producing an output level of 100 units where MC = $5 and MR = $8. At this output, ATC = $8, AVC = $6, and consumers' limit price is $10. This firm should

A.* increase output and lower price.
B. decrease output and lower price.
C. increase output and increase price.
D. decrease output and increase price.

18. Assume a single price monopoly faces a downward-sloping demand curve. This firm can sell 1 unit at a price of $500 and 2 units at a price of $400. The marginal revenue of the 2nd unit is

A.* $300.
B. $400.
C. $500.
D. $800.

19. A perfect price discriminating monopolist would

A. earn greater profits than a single price monopolist.
B. produce greater output than a single price monopolist.
C. produce where MR=MC.
D. * All of the above are true.

20. Market failure (as a term used in economics)

A. would be worse with a price discriminating monopolist compared to a single price monopolist.
B. occurs when producer surplus exceeds consumer surplus.
C. would be most evident in markets with low prices.
D. occurs any time firms must exit a market due to lower than normal profits.
*E. None of the above are true.

Print Your Name: _____

II. Short Essay - Be precise, complete, and neat in your answers. Use only the space allowed.

1. (4 Points) Assuming the price of labor is $10 per unit, complete the following table.

Q_L	MP_L	Total Output	MC_{output}	TVC_{output}	AVC_{output}
1	5	5	10/5	10	10/5
2	5	10	10/5	20	20/10

2. (5 Points) Assume a firm faces increasing MP at output levels below 50 and decreasing MP at output levels above 50.

   Show graphically a set of cost curves (as shown in class) that would characterize the AVC, and MC of this firm. Make this graph very neat and legible.

3. (5 Points) Complete the following table for a firm in a Perfectly Competitive Industry:

Q	MC	FC	TVC	TC	MR	TR	Total Profit
0	____	$50	____	____	____	____	____
1	$5	____	____	____	$5	____	____
2	$1	____	____	____	$5	____	____
3	$5	____	____	____	____	____	____

4. (5) points. Assume a perfectly competitive industry with an equilibrium price of $10. Show graphically (fully label your graph), the case of a firm in this industry in the SR producing 50 units of output and making an economic profit of $150. NO DISCUSSION NECESSARY.

5. (4) points. BRIEFLY explain what occurs in a perfectly competitive industry in the LR if economic profits are being made by the firms in that industry.

6. (5) points. Assume a single price monopoly firm in the SR. Show graphically (fully label your graph), the case of this firm producing 50 units of output, charging $20 per unit, and making an economic profit of $150. NO DISCUSSION NECESSARY.

7. Fill in the blank (2 points each)

A. In the short run, the marginal product of variable inputs is assumed to decrease because of _____.

B. As a firm's output increases, ATC eventually increases because MC is _____ .

C. Suppose a firm has ATC of $10 at 4 units of output, and the MC of the 5th unit of output is $3. At 5 units of output, the firms TC equal _____.

D If IRS profits are positive then economic profits may be _____ or _____.

8. (4 points) Briefly summarize in bullet fashion, the key ideas in **ONE** of the public issues readings from one of the following chapters:

a) The Graying of America
b) Contracts, Combinations, Conspiracies
c) Crime and Punishment