

### Review 3

**Chapters 10, 11, 12, 13, 14 are included in Midterm 3. There will be 40-45 questions. Most of the questions will be definitional, make sure you read the text carefully.**

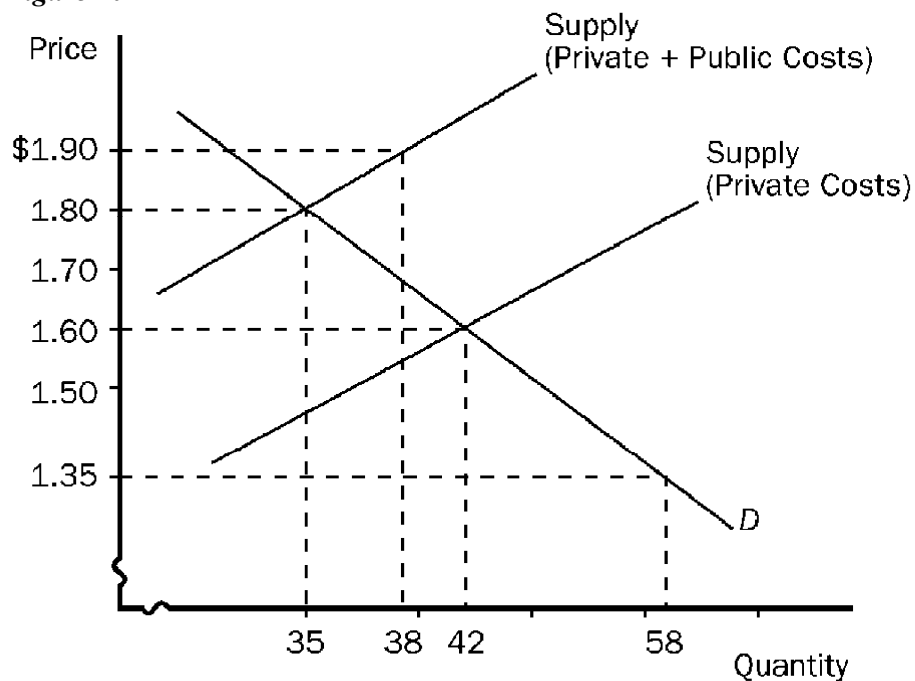
*Table 14-2*

The following table presents cost and revenue information for Soper's Port Vineyard.

COSTS			REVENUES			
Quantity Produced	Total Cost	Marginal Cost	Quantity Demanded	Price	Total Revenue	Marginal Revenue
0	100	--	0	120		--
1	150		1	120		
2	202		2	120		
3	257		3	120		
4	317		4	120		
5	385		5	120		
6	465		6	120		
7	562		7	120		
8	682		8	120		

- \_\_\_\_\_ 1. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the total revenue from selling 7 units?
- \$120
  - \$700
  - \$820
  - \$840
- \_\_\_\_\_ 2. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the total revenue from selling 4 units?
- \$120
  - \$217
  - \$263
  - \$480
- \_\_\_\_\_ 3. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the marginal revenue from selling the 3rd unit?
- \$50
  - \$80
  - \$120
  - \$140
- \_\_\_\_\_ 4. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the average revenue when 4 units are sold?
- \$50
  - \$120
  - \$125
  - \$130

5. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the marginal cost of the 1st unit?
- \$50
  - \$75
  - \$80
  - \$150
6. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is the marginal cost of the 8th unit?
- \$0
  - \$100
  - \$120
  - \$140
7. **Refer to Table 14-2.** Consumers are willing to pay \$120 per unit of port wine. What is Soper's Port Vineyard's economic profit at their profit maximizing point?
- \$78
  - \$243
  - \$278
  - \$375

**Figure 10-1**

8. **Refer to Figure 10-1.** This graph represents the tobacco industry. The industry creates
- positive externalities.
  - negative externalities.
  - no externalities.
  - no equilibrium in the market.

- \_\_\_\_\_ 9. **Refer to Figure 10-1.** This graph represents the tobacco industry. Without any government intervention, the equilibrium price and quantity are
- \$1.90 and 38 units, respectively.
  - \$1.80 and 35 units, respectively.
  - \$1.60 and 42 units, respectively.
  - \$1.35 and 58 units, respectively.
- \_\_\_\_\_ 10. **Refer to Figure 10-1.** This graph represents the tobacco industry. The socially optimal price and quantity are
- \$1.90 and 38 units, respectively.
  - \$1.80 and 35 units, respectively.
  - \$1.60 and 42 units, respectively.
  - \$1.35 and 58 units, respectively.

**Table 12-5**

Income	Tax rate
\$0 to \$40,000	20%
Over \$40,000	50%

- \_\_\_\_\_ 11. **Refer to Table 12-5.** What is the marginal tax rate for a person who makes \$35,000?
- 20%
  - 30%
  - 40%
  - 50%
- \_\_\_\_\_ 12. **Refer to Table 12-5.** What is the marginal tax rate for a person who makes \$60,000?
- 20%
  - 30%
  - 40%
  - 50%
- \_\_\_\_\_ 13. **Refer to Table 12-5.** What is the average tax rate for a person who makes \$60,000?
- 20%
  - 30%
  - 40%
  - 50%
- \_\_\_\_\_ 14. XYZ corporation produced 300 units of output but sold only 275 of the units it produced. The average cost of production for each unit of output produced was \$100. Each of the 275 units sold was sold for a price of \$95. Total profit for the XYZ corporation would be
- \$3,875.
  - \$26,125.
  - \$28,500.
  - \$30,000.

**Scenario 13-1**

Joe wants to start his own business. The business he wants to start will require that he purchase a factory that costs \$400,000. Joe currently has \$500,000 in the bank earning 3 percent interest per year.

- \_\_\_\_\_ 15. **Refer to Scenario 13-1.** Suppose Joe purchases the factory using \$200,000 of his own money and \$200,000 borrowed from a bank at an interest rate of 6 percent. What is Joe's annual opportunity cost of purchasing the factory?
- a. \$3,000
  - b. \$6,000
  - c. \$15,000
  - d. \$18,000
- \_\_\_\_\_ 16. Suppose a certain firm is able to produce 165 units of output per day when 15 workers are hired. The firm is able to produce 176 units of output per day when 16 workers are hired (holding other inputs fixed). Then the marginal product of the 16th worker is
- a. 10 units of output.
  - b. 11 units of output.
  - c. 16 units of output.
  - d. 176 units of output.

**Table 13-2**

Number of Workers	Output
0	0
1	50
2	110
3	180
4	260
5	330

- \_\_\_\_\_ 17. **Refer to Table 13-2.** What is the marginal product of the fourth worker?
- a. 65
  - b. 70
  - c. 75
  - d. 80
- \_\_\_\_\_ 18. **Refer to Table 13-2.** At which number of workers does diminishing marginal product begin?
- a. 2
  - b. 3
  - c. 4
  - d. 5

**Table 13-3**

Number of Workers	Number of Machines	Output (corks produced per hour)	Marginal Product of Labor	Cost of Workers	Cost of Machines	Total Cost
1	2	5				
2	2	10				
3	2	20				
4	2	35				
5	2	55				
6	2	70				
7	2	80				

19. **Refer to Table 13-3.** Each worker at Gallo's cork factory costs \$12 per hour. The cost of each machine is \$20 per day regardless of the number of corks produced. If Gallo's produces at a rate of 70 corks per hour and operates 8 hours per day, what is Gallo's total labor cost per day?
- \$72
  - \$96
  - \$480
  - \$576

**Table 13-6**

Adrian's Premium Chocolates produces boxes of chocolates for its mail order catalogue business. She rents a small room for \$150 a week in the downtown business district that serves as her factory. She can hire workers for \$275 a week. There are no implicit costs.

Number of Workers	Boxes of Chocolates Produced per Week	Marginal Product of Labor	Cost of Factory	Cost of Workers	Total Cost of Inputs
0	0				
1		330	150	275	425
2	630				
3		150		825	975
4	890				
5	950	60		1,375	
6		10			1,800

20. **Refer to Table 13-6.** What is the marginal product of the second worker?
- 110
  - 200
  - 260
  - 300

- \_\_\_\_\_ 21. **Refer to Table 13-6.** What is the total cost associated with making 890 boxes of premium chocolates per week?
- a. \$1,250
  - b. \$1,325
  - c. \$1,400
  - d. \$1,575
- \_\_\_\_\_ 22. **Refer to Table 13-6.** During the week of July 4th, Adrian doesn't box any chocolates. What are her costs during the week?
- a. \$0
  - b. \$150
  - c. \$275
  - d. \$425
- \_\_\_\_\_ 23. **Refer to Table 13-6.** One week, Adrian earns a profit of \$125. If her revenue for the week is \$1100, how many boxes of chocolate did she produce?
- a. 140
  - b. 330
  - c. 780
  - d. 950

**Table 13-9**

Output	Total Cost
0	40
10	60
20	90
30	130
40	180
50	240

- \_\_\_\_\_ 24. **Refer to Table 13-9.** What is the total fixed cost for this firm?
- a. \$20
  - b. \$30
  - c. \$40
  - d. \$50
- \_\_\_\_\_ 25. **Refer to Table 13-9.** What is average fixed cost when output is 40 units?
- a. \$1.00
  - b. \$3.32
  - c. \$5.00
  - d. \$8.00
- \_\_\_\_\_ 26. **Refer to Table 13-9.** What is average variable cost when output is 50 units?
- a. \$3.60
  - b. \$4.00
  - c. \$4.40
  - d. \$4.80

- \_\_\_\_\_ 27. **Refer to Table 13-9.** What is variable cost when output equals 30 units?
- a. \$4.00
  - b. \$4.33
  - c. \$40.00
  - d. \$90.00

**Table 13-10**

Consider the following table of long-run total cost for four different firms

Quantity	1	2	3	4	5	6	7
Firm 1	\$210	\$340	\$490	\$660	\$850	\$1,060	\$1,290
Firm 2	\$180	\$350	\$510	\$660	\$800	\$930	\$1,050
Firm 3	\$120	\$250	\$390	\$540	\$700	\$870	\$1,050
Firm 4	\$150	\$300	\$450	\$600	\$750	\$900	\$1,050

- \_\_\_\_\_ 28. **Refer to Table 13-10.** Which firm has constant returns to scale over the entire range of output?
- a. Firm 1
  - b. Firm 2
  - c. Firm 3
  - d. Firm 4

### Review 3

### Answer Section

#### MULTIPLE CHOICE

- |                                |        |           |                                |
|--------------------------------|--------|-----------|--------------------------------|
| 1. ANS: D<br>MSC: Applicative  | DIF: 2 | REF: 14-1 | TOP: Total revenue             |
| 2. ANS: D<br>MSC: Applicative  | DIF: 2 | REF: 14-1 | TOP: Total revenue             |
| 3. ANS: C<br>MSC: Applicative  | DIF: 2 | REF: 14-1 | TOP: Marginal revenue          |
| 4. ANS: B<br>MSC: Applicative  | DIF: 2 | REF: 14-1 | TOP: Average revenue           |
| 5. ANS: A<br>MSC: Applicative  | DIF: 2 | REF: 14-2 | TOP: Marginal cost             |
| 6. ANS: C<br>MSC: Applicative  | DIF: 2 | REF: 14-2 | TOP: Marginal cost             |
| 7. ANS: C<br>MSC: Applicative  | DIF: 2 | REF: 14-2 | TOP: Economic profit           |
| 8. ANS: B<br>MSC: Applicative  | DIF: 2 | REF: 10-1 | TOP: Externalities             |
| 9. ANS: C<br>MSC: Applicative  | DIF: 2 | REF: 10-1 | TOP: Externalities             |
| 10. ANS: B<br>MSC: Applicative | DIF: 2 | REF: 10-1 | TOP: Externalities             |
| 11. ANS: A<br>MSC: Analytical  | DIF: 2 | REF: 12-2 | TOP: Marginal tax rates        |
| 12. ANS: D<br>MSC: Analytical  | DIF: 2 | REF: 12-2 | TOP: Marginal tax rates        |
| 13. ANS: B<br>MSC: Analytical  | DIF: 3 | REF: 12-2 | TOP: Average tax rates         |
| 14. ANS: A<br>MSC: Applicative | DIF: 2 | REF: 13-1 | TOP: Profit                    |
| 15. ANS: D<br>MSC: Applicative | DIF: 2 | REF: 13-1 | TOP: Opportunity cost          |
| 16. ANS: B<br>MSC: Applicative | DIF: 1 | REF: 13-2 | TOP: Marginal product of labor |
| 17. ANS: D<br>MSC: Analytical  | DIF: 2 | REF: 13-2 | TOP: Marginal product          |
| 18. ANS: D<br>MSC: Analytical  | DIF: 1 | REF: 13-2 | TOP: Marginal product          |
| 19. ANS: D<br>MSC: Applicative | DIF: 2 | REF: 13-2 | TOP: Variable costs            |
| 20. ANS: D<br>MSC: Applicative | DIF: 2 | REF: 13-3 | TOP: Marginal product of labor |



- |     |                            |        |           |                                |
|-----|----------------------------|--------|-----------|--------------------------------|
| 21. | ANS: A<br>MSC: Applicative | DIF: 2 | REF: 13-3 | TOP: Total cost                |
| 22. | ANS: B<br>MSC: Applicative | DIF: 2 | REF: 13-3 | TOP: Fixed costs               |
| 23. | ANS: C<br>MSC: Applicative | DIF: 2 | REF: 13-3 | TOP: Accounting profit         |
| 24. | ANS: C<br>MSC: Analytical  | DIF: 2 | REF: 13-4 | TOP: Fixed costs               |
| 25. | ANS: A<br>MSC: Analytical  | DIF: 3 | REF: 13-4 | TOP: Average fixed cost        |
| 26. | ANS: B<br>MSC: Analytical  | DIF: 3 | REF: 13-4 | TOP: Average variable cost     |
| 27. | ANS: D<br>MSC: Analytical  | DIF: 2 | REF: 13-4 | TOP: Variable costs            |
| 28. | ANS: D<br>MSC: Applicative | DIF: 2 | REF: 13-4 | TOP: Constant returns to scale |