

**THE UNIVERSITY OF WESTERN ONTARIO
LONDON CANADA**

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ECONOMICS 1021A-001

November 17, 2011

MIDTERM 2 MAKE-UP

INSTRUCTIONS:

1. The examination begins at **4:30 p.m.** and ends at **6:30 p.m.**
2. Check that your examination paper contains 18 pages.
3. Use a **BLACK PENCIL** to complete your Scantron Form.

Print your **NAME** and complete your **SIGNATURE**.

Enter your **STUDENT NUMBER**.

Enter your **SECTION NUMBER**, which is 001.

4. **Please hand in ALL MATERIALS.**
5. You may use a regular calculator but you may not use a programmable or graphing calculator.
6. Your cell phone must be switched off and left in your bag at the front of the exam room.

NOTE: QUESTIONS ARE PRINTED ON BOTH SIDES OF EACH PAGE

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Use the information below to answer the following question.

Fact 1

Consider the following three methods of preparing your tax return. Method *A* uses a personal computer (cost equal to \$1,000) and 1 hour of your time. Method *B* uses a calculator (cost equal to \$30) and 12 hours of your time. Method *C* uses pen and paper (cost equal to \$1) and 2 days (16 hours) of your time.

- 1) Consider Fact 1. Choose the best statement.
- A) When your wage rate is \$5 per hour, the economically efficient method is method *C*.
 - B) When your wage rate is \$50 per hour, the economically efficient method is method *B*.
 - C) When your wage rate is \$500 per hour, the economically efficient method is method *A*.
 - D) all of the above
 - E) B and C only

Use the table below to answer the following questions.

Table 1

Output (pizzas per hour)	Total Cost (dollars per hour)
0	10
1	12
2	16
3	22
4	30
5	40
6	55

- 2) Refer to Table 1, which gives the total cost schedule for Chip's Pizza Palace, a perfectly competitive firm. If Chip shuts down in the short run, his total cost is
- A) \$40 an hour.
 - B) \$12 an hour.
 - C) \$10 an hour.
 - D) \$0.
 - E) \$22 an hour.

- 3) Refer to Table 1, which gives the total cost schedule for Chip's Pizza Palace, a perfectly competitive firm. If the price of a pizza is \$7, what is Chip's profit-maximizing output per hour?
- A) zero pizzas
 - B) 1 pizza
 - C) 2 pizzas
 - D) 3 pizzas
 - E) 4 pizzas
- 4) A firm in a perfectly competitive industry is maximizing its economic profit by producing 500 units of output. At 500 units of output, which one of the following must be *false*?
- A) $MR > AVC$
 - B) $MR < ATC$
 - C) $MC > ATC$
 - D) $MC < ATC$
 - E) $MC < AVC$
- 5) Harold can consume apples and oranges. He likes them equally well and currently is in consumer equilibrium. Then the price of oranges rises, while his income remains the same. What will happen to his consumption?
- A) consumption of oranges decreases; consumption of apples decreases
 - B) consumption of oranges increases; consumption of apples increases
 - C) consumption of oranges increases; consumption of apples decreases
 - D) consumption of oranges decreases; consumption of apples increases
 - E) consumption of oranges decreases; consumption of apples could either increase or decrease

Use the figure below to answer the following question.

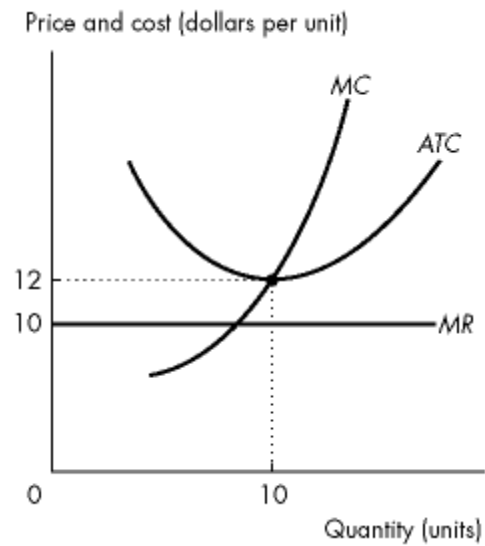


Figure 1

- 6) Refer to Figure 1 which shows the cost curves and marginal revenue curve of a firm in a perfectly competitive industry. In the long run,
- A) market supply will increase.
 - B) market demand will increase.
 - C) firms that remain in the market will expand production.
 - D) firms will enter the market.
 - E) firms that remain in the market will reduce production.

Use the table below to answer the following questions.

Table 2

Output (units)	Total Revenue (dollars)	Total Cost (dollars)
0	0	25
1	30	49
2	60	69
3	90	86
4	120	100
5	150	114
6	180	128
7	210	170

- 7) Refer to Table 2, which gives the total revenue schedule and total cost schedule of a perfectly competitive firm. If the firm produces 2 units of output, it
- A) incurs an economic loss of \$9.
 - B) incurs an economic loss of \$60.
 - C) incurs an economic loss of \$69.
 - D) makes an economic profit of \$9.
 - E) makes an economic profit of \$60.
- 8) Refer to Table 2, which gives the total revenue schedule and total cost schedule of a perfectly competitive firm. The short-run equilibrium price of one unit of the good is
- A) \$3.
 - B) \$10.
 - C) \$25.
 - D) \$30.
 - E) \$15.
- 9) Let MU_A and MU_B stand for the marginal utility of goods A and B , respectively. Let P_A and P_B stand for the price of goods A and B , respectively. Assume that for a given consumer MU_A and MU_B are equal each other, and P_A is greater than P_B . In this case, the consumer is better off if he consumes
- A) less of good A and more of good B .
 - B) equal amount of goods A and B .
 - C) more of good A and less of good B .
 - D) neither good A nor good B .
 - E) good B only.

Use the figure below to answer the following question.

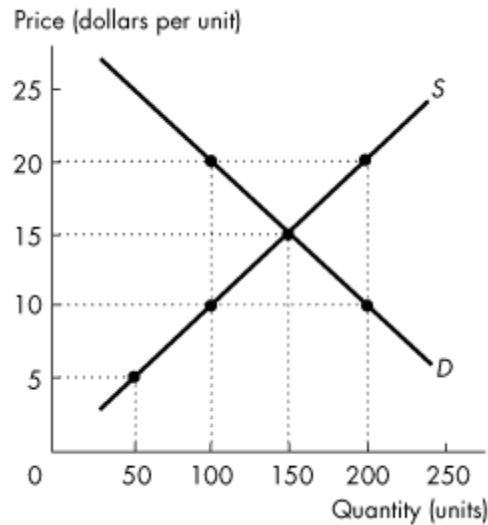


Figure 2

- 10) Refer to Figure 2. If the quantity produced is 100,
- A) marginal social benefit exceeds marginal social cost.
 - B) marginal social cost exceeds marginal social benefit.
 - C) deadweight loss is zero.
 - D) marginal social benefit is minimized.
 - E) production is efficient.

Use the information below to answer the following question.

Fact 2

Franklin is a fiddlehead farmer. He sold 10 bags of fiddleheads last month, with total fixed cost of \$100 and total variable cost of \$50.

- 11) Refer to Fact 2. Suppose the price of fiddleheads is expected to stay at \$10 per bag for the foreseeable future, and Franklin's production and cost figures are expected to stay the same. His total fixed cost consists entirely of rent on land, and his five-year lease on the land runs out at the end of the month. Should Franklin renew the lease?
- A) Yes, because total revenue will still cover total variable cost and a portion of total fixed cost.
 - B) No, because total revenue must cover all costs for factors of production to remain in fiddlehead farming in the long run.
 - C) Yes, because total revenue will still cover total fixed cost.
 - D) No, because in the long run, zero economic profit is a signal to move factors of production out of fiddlehead farming.
 - E) insufficient information to answer

- 12) Gerald is a freelance writer who could work for a newspaper at \$25,000 a year but instead runs his own business making a revenue of \$40,000 a year. His only business expenses are \$1,000 for writing materials and \$12,000 for rent. What is Gerald's economic profit from working as a freelance writer?
- A) \$15,000
 - B) \$2,000
 - C) \$28,000
 - D) \$27,000
 - E) \$25,000
- 13) If AFC is falling then MC must be
- A) above AFC .
 - B) below AFC .
 - C) falling.
 - D) rising.
 - E) none of the above.

Use the figure below to answer the following questions.

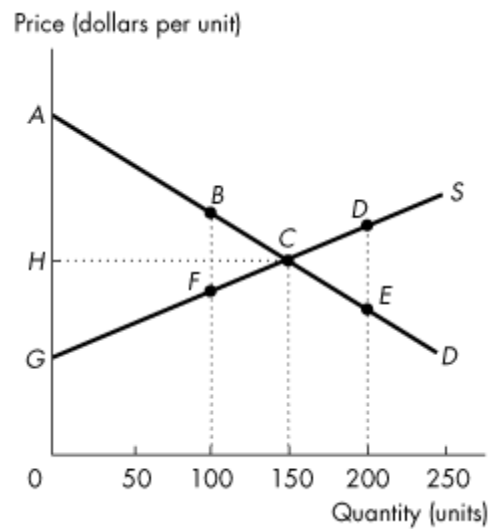


Figure 3

- 14) Refer to Figure 3. If the level of output is 150 units, the producer surplus is area
- A) ACG .
 - B) HCG .
 - C) BCF .
 - D) ACH .
 - E) DCE .

- 15) Refer to Figure 3. If the level of output is 200 units, the deadweight loss is area
- A) *BCF*.
 - B) *ACG*.
 - C) *ACH*.
 - D) *HCG*.
 - E) *DCE*.

Use the table below to answer the following question.

Table 3
Swanky's output levels

Labour (workers per day)	Plant Size (knitting machines)		
	1	2	3
1	5	11	14
2	11	16	19
3	14	19	23
4	16	21	25
5	17	22	26

- 16) Refer to Table 3, which represents Swanky's production possibilities as the firm varies the quantities of knitting machines and workers per day. If Swanky increases the number of knitting machines from 1 to 2 and increases the number of workers employed from 1 to 2, the factory experiences
- A) constant returns to scale.
 - B) diseconomies of scale.
 - C) constant marginal product.
 - D) minimum efficient scale.
 - E) economies of scale.

Use the figure below to answer the following question.

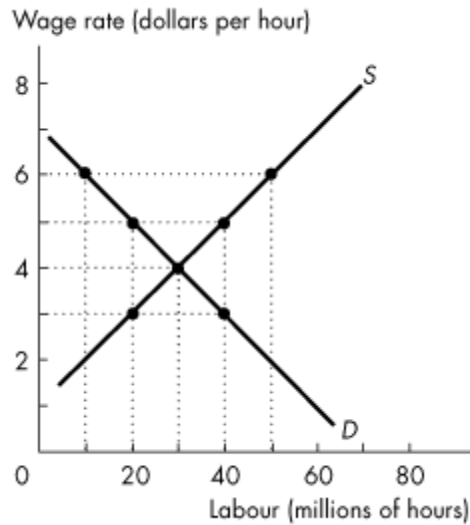


Figure 4

- 17) Refer to Figure 4. If the minimum wage is set at \$6 per hour, what is the level of unemployment in millions of hours?
- A) 0
 - B) 20
 - C) 10
 - D) 50
 - E) 40
- 18) Firm A can produce a unit of output with 10 hours of labour and 5 units of capital. Firm B can produce a unit of output with 5 hours of labour and 10 units of capital. Firm C can produce a unit of output with 10 hours of labour and 10 units of capital. If the prices of labour and material are \$10 and \$5, respectively which firm is *technologically* efficient?
- A) A
 - B) B
 - C) C
 - D) A and B
 - E) A and C
- 19) For perfect competition to arise, it is necessary that market demand be
- A) large relative to the minimum efficient scale of a single firm.
 - B) elastic.
 - C) perfectly elastic.
 - D) small relative to the minimum efficient scale of a single firm.
 - E) inelastic.

- 20) Suppose a firm is trying to decide whether or not to temporarily shut down to minimize total loss. If price equals average variable cost, then
- A) total revenue equals total fixed cost, and the loss equals total variable cost.
 - B) total cost equals total variable cost.
 - C) total fixed cost is zero.
 - D) total revenue equals total variable cost, and the loss equals total fixed cost.
 - E) total variable cost equals total fixed cost.
- 21) Choose the correct statement.
- A) A government subsidy paid to a producer is an external benefit.
 - B) Producer surplus is an external cost.
 - C) Consumer surplus is an external cost.
 - D) Consumer surplus is an external benefit.
 - E) Subsidies lead to overproduction.
- 22) Advise Sarah how to maximize her utility if $MU_A=8$, $MU_B=20$, $P_A=4$ and $P_B=5$.
- A) Consume more of good *A* and less of good *B*.
 - B) Raise the price of good *A*.
 - C) Lower the price of good *B*.
 - D) Consume equal amounts of both goods.
 - E) Consume more of good *B* and less of good *A*.
- 23) If enforcement is aimed at buyers of an illegal good, the
- A) price rises and quantity bought decreases.
 - B) price and quantity bought increase.
 - C) price and quantity bought decrease.
 - D) price change is uncertain and quantity bought decreases.
 - E) price falls and quantity bought increases.
- 24) Suppose the minimum wage is \$4 per hour, and 1,100 units of labour are hired. Then the government raises the minimum wage to \$6 per hour, and 900 units are now hired. Choose the correct statement.
- A) Total wages paid to workers has fallen.
 - B) The price elasticity of demand for labour is 0.5.
 - C) There is unemployment in this labour market.
 - D) The quantity of labour supplied is greater at the higher minimum wage.
 - E) all of the above except A.

- 25) Childcare workers often get paid fairly low wages, yet it is said that they have "the most important job in the world." This paradox can be resolved by
- A) distinguishing between marginal utility and total utility.
 - B) noting that childcare yields no utility since it is a service.
 - C) distinguishing between price and value.
 - D) noting that marginal utility does not diminish for childcare.
 - E) none of the above.

Use the figure below to answer the following question.

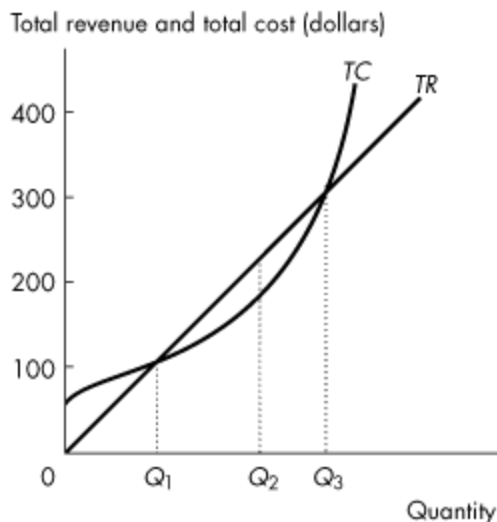


Figure 5

- 26) Refer to Figure 5, which shows a perfectly competitive firm's total revenue and total cost curves. Which one of the following statements is *false*?
- A) Economic profit is the vertical distance between the total revenue curve and the total cost curve.
 - B) At an output of Q_1 units a day, the firm makes zero economic profit.
 - C) At an output less than Q_1 units a day, the firm incurs an economic loss.
 - D) At an output of Q_2 units a day, the firm incurs an economic loss.
 - E) At an output greater than Q_3 units a day, the firm incurs an economic loss.

Use the figure below to answer the following question.

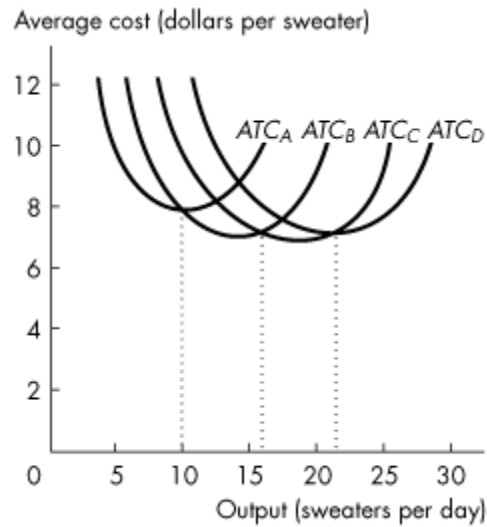


Figure 6

- 27) Refer to Figure 6, which illustrates the short-run average total cost curves for four different plant sizes. Which plant has the lowest average total cost for an output rate of 5 sweaters a day?
- A) Plant A
 - B) Plant B
 - C) Plant C
 - D) Plant D
 - E) none of the above

Use the table below to answer the following question.

Table 4

Bags of Popcorn	Marginal Utility	Bottles of Pop	Marginal Utility
1	120	1	120
2	100	2	70
3	80	3	60
4	70	4	40

- 28) Refer to Table 4. What is the total utility if 3 bags of popcorn and 2 bottles of pop are consumed?
- A) 310
 - B) 100.
 - C) 490
 - D) 150
 - E) 660

Use the figure below to answer the following question.

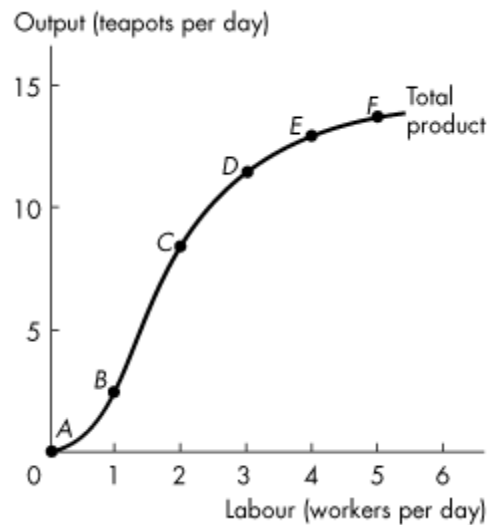


Figure 7

- 29) Refer to Figure 7 which illustrates Tania's total product curve. Average product of labour reaches its maximum for the _____ worker.
- A) first
 - B) second
 - C) third
 - D) fourth
 - E) fifth
- 30) If a perfectly competitive firm's marginal revenue is less than its marginal cost, the firm
- A) must raise the price.
 - B) should decrease its output to increase economic profit.
 - C) cannot increase its economic profit.
 - D) should increase its output to increase economic profit.
 - E) must be making an economic profit.
- 31) If enforcement is aimed at sellers of an illegal good, the
- A) price change is uncertain and quantity bought decreases.
 - B) price and quantity bought decrease.
 - C) price and quantity bought increase.
 - D) price falls and quantity bought increases.
 - E) price rises and quantity bought decreases.

Use the table below to answer the following question.

Table 5

Good X (\$2 each)		Good Y (\$1 each)	
Quantity	Utility	Quantity	Utility
1	20	1	14
2	32	2	24
3	42	3	32
4	48	4	37
5	52	5	40
6	54	6	42
7	55	7	43

- 32) Refer to Table 5. To attain consumer equilibrium, the first \$4 of income is used to purchase
- A) 2 units of good X.
 - B) an amount of X and Y that cannot be determined from the table.
 - C) 4 units of good Y.
 - D) 3 units of good X.
 - E) 2 units of good Y and 1 unit of X.
- 33) The vertical distance between the *TC* and *TVC* curves
- A) is equal to *MC*.
 - B) increases as output increases.
 - C) decreases as output increases.
 - D) is equal to *AFC*.
 - E) is equal to *TFC*.

Use the figure below to answer the following question.

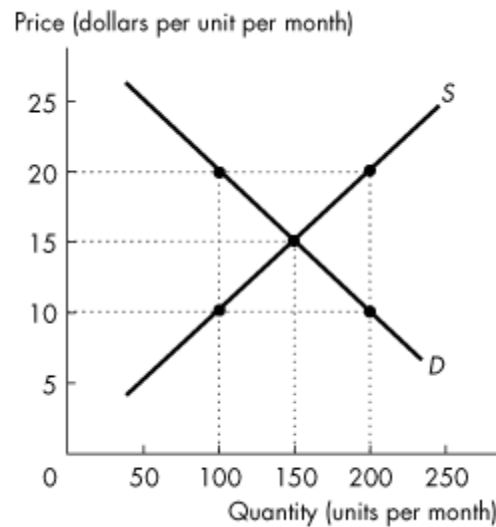


Figure 8

- 34) Refer to Figure 8. What would be the maximum black market price of the good if a price ceiling is set at \$10 a unit?
- A) \$10.
 - B) 50 goods sold at \$10 and 50 goods sold at \$15.
 - C) \$20.
 - D) 50 goods sold at \$10 and 50 goods sold at \$20.
 - E) \$15.
- 35) Choose the correct statement.
- A) When total product is increasing, average product of labour is decreasing and marginal product of labour is increasing.
 - B) When marginal product of labour is increasing, average product of labour is greater than marginal product of labour.
 - C) When marginal product of labour is greater than or equal to average product of labour, average product of labour is increasing.
 - D) When marginal product of labour is greater than average product of labour and marginal product is either increasing or decreasing average product of labour is increasing.
 - E) When total product is increasing average product of labour and marginal product of labour are both increasing.
- 36) The steeper the slope of the total product curve,
- A) the smaller the average product.
 - B) the smaller the marginal product.
 - C) the greater the total cost.
 - D) the greater the marginal product.
 - E) the more efficient the technology employed.

Use the figure below to answer the following question.

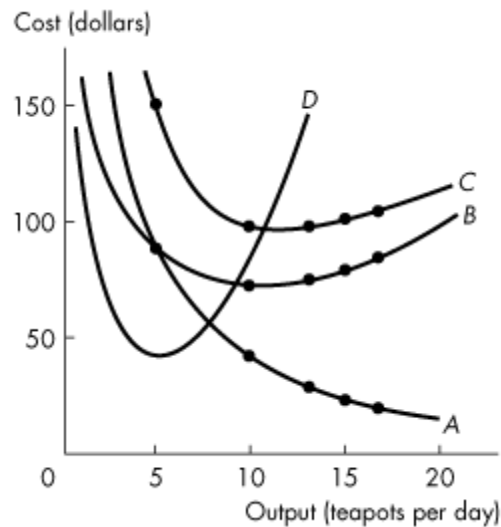


Figure 9

- 37) Refer to Figure 9, which illustrates short-run average and marginal cost curves. Which one of the following statements is *false*?
- A) Line *B* comes closer to line *C* as output increases because of a decrease in average fixed cost.
 - B) The vertical gap between curves *B* and *C* is equal to average variable cost.
 - C) The vertical gap between curves *B* and *C* is equal to average fixed cost.
 - D) Average fixed cost decreases with output.
 - E) Curve *D* is the marginal cost curve.
- 38) Total utility equals
- A) the area below the demand curve but above the market price.
 - B) the marginal utility of the last unit divided by price.
 - C) the marginal utility of the last unit consumed multiplied by the total number of units consumed.
 - D) the slope of the marginal utility curve.
 - E) the sum of the marginal utilities of each unit consumed.
- 39) A unit elastic demand
- A) means that the ratio of a percentage change in quantity demanded to a percentage change in price is equal to 1.
 - B) is illustrated by a vertical demand curve.
 - C) means that the ratio of a change in price to a change in quantity demanded is equal to 1.
 - D) is illustrated by a horizontal demand curve.
 - E) means that the ratio of a change in quantity demanded to a change in price is equal to 1.

- 40) Firms will stop exiting an industry only when
- A) all remaining firms are making an economic profit.
 - B) all remaining firms are making zero economic profit.
 - C) marginal revenue equals price.
 - D) marginal revenue equals marginal cost.
 - E) marginal revenue equals average fixed cost.
- 41) Susan invests \$1,000 to buy shares of TooNew stock. The company declares bankruptcy, leaving many debts unpaid, including Susan's \$1,000 investment. Susan has a personal net worth of \$50,000. What will be Susan's final net worth if TooNew has total unpaid debts of \$30,000?
- A) \$51,000
 - B) \$49,000
 - C) \$19,000
 - D) \$20,000
 - E) \$21,000
- 42) Total cost is \$20 at 4 units of output and \$36 at 6 units of output. Between 4 and 6 units of output, marginal cost
- A) is equal to average variable cost.
 - B) is equal to average total cost.
 - C) is greater than average total cost.
 - D) is less than average total cost.
 - E) equals average fixed cost.
- 43) Fred's income increases from \$840 per week to \$1,160 per week. As a result, he decides to purchase 24 percent more bubble gum each week. The income elasticity of Fred's demand for bubble gum is
- A) 0.32.
 - B) 1.33.
 - C) 0.24.
 - D) 0.75.
 - E) 24.

- 44) Which of the following statements by a restaurant owner refers to the law of diminishing marginal returns?
- A) "If we double the size of our premises and double everything else — kitchen staff, serving staff, equipment — we can increase the number of meals we serve, but not to double the current levels."
 - B) "We can serve the same number of meals with fewer kitchen staff, but we would have to buy more labour-saving kitchen equipment."
 - C) "The higher the quality of the ingredients we use, the higher the cost of producing each meal."
 - D) "We can increase the number of meals we serve by just adding more kitchen staff, but each additional worker adds less meals than the previous worker because traffic in the kitchen will get worse."
 - E) "We can serve the same number of meals with less kitchen equipment, but we would have to hire more kitchen staff."
- 45) If A and B are substitutes in production and the price of A falls, the supply of B
- A) decreases and the price of B falls.
 - B) does not change.
 - C) decreases and the price of B rises.
 - D) increases and the price of B rises.
 - E) increases and the price of B falls.
- 46) Which of the following will definitely result in an increase in the equilibrium price?
- A) an increase in supply combined with a decrease in demand
 - B) a decrease in demand combined with an increase in supply
 - C) a decrease in both demand and supply
 - D) an increase in both demand and supply
 - E) an increase in demand combined with a decrease in supply
- 47) A firm will want to increase its scale of plant if
- A) it is persistently producing on the upward-sloping part of its short-run average total cost curve.
 - B) it is producing below minimum efficient scale.
 - C) it is persistently producing on the downward-sloping part of its short-run average total cost curve.
 - D) marginal cost is below average total cost.
 - E) marginal cost is below average variable cost.

- 48) Which one of the following statements is *true*?
- A) The maximum total product occurs at minimum marginal product.
 - B) When the average product curve is rising, marginal product is less than average product.
 - C) The highest value of average product occurs where average product equals marginal product.
 - D) The highest value of average product occurs where average product is greater than marginal product.
 - E) When the average product curve is falling, marginal product is greater than average product.

Use the figure below to answer the following question.

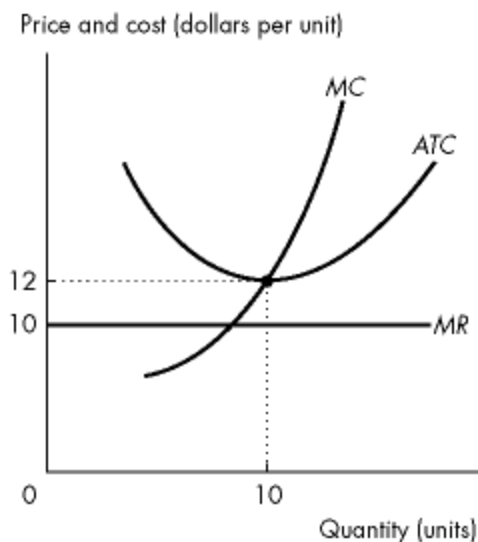


Figure 10

- 49) Refer to Figure 10, which shows the cost curves and marginal revenue curve of a firm in a perfectly competitive industry. In the short run, if the market price of the good is \$10, the firm produces _____ units of output and _____.
- A) less than 10; incurs an economic loss of \$20
 - B) 10; incurs an economic loss of \$40
 - C) 10; makes an economic profit of \$20
 - D) less than 10; incurs an economic loss of less than \$20
 - E) 10; incurs an economic loss of \$20
- 50) If a profit-maximizing firm in a perfectly competitive market is making an economic profit, then it must be producing a level of output where
- A) price is greater than marginal revenue.
 - B) marginal cost is greater than average total cost.
 - C) price is greater than marginal cost.
 - D) average total cost is greater than marginal cost.
 - E) marginal cost is greater than marginal revenue.

Answer Key

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

Answer Key

Testname: MT2MUNOV11

43) D

44) D

45) E

46) E

47) A

48) C

49) D

50) B