LAST/FAMILY NAME: FIRST NAME:

STUDENT ID:

Econ 1b03 Test 3, Nov 17, 2005

Instructions:

Please print your name (last name, first name, middle initial) and student number in the space provided at the top of each page.

The test consists of 25 multiple choice (MC) questions and 1 short answer question. There is a total of 15 marks on the test. You have 50 minutes to complete the test. Answer all questions.

Only one answer is correct for the MC questions. Points are awarded if only the correct answer is circled. Answer the short answer question in the space provided below.

No material, other than University approved calculators, is allowed.

Multiple choice questions (1/2 marks each, total 12.5 marks):

1. The _____ is the increase in output obtained by hiring an additional worker.

A) average product
B) total product
C) marginal product
D) marginal cost

2. A consumer maximizes utility when, given her income, she chooses a consumption bundle where:

A) the marginal utility of each good is equal.
B) the highest indifference curve is tangent to the budget line.
C) the marginal rate of substitution is highest.
D) the marginal utility of each good is highest.

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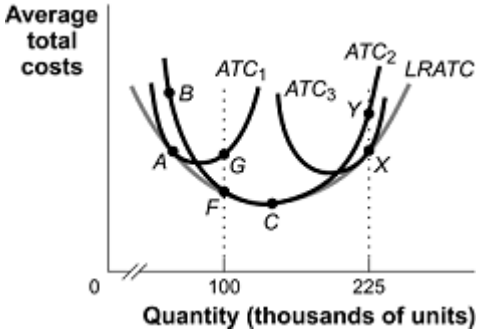
3. Austin's total fixed cost is $3,600. Austin employs 20 workers and pays each worker $60. The average product of labour is 30, the marginal product of the 20th worker is 12. What is the marginal cost of the last unit produced by the last worker who Austin hired?

A) $0.20
B) $5
C) $240
D) $720

4. Figure: Cost Curves



If a firm faced a long-run average cost curve as shown in the accompanying figure and it expected to produce 100-thousand units of the good in the long run, the firm should build:

A) the plant associated with ATC_1.
B) the plant associated with ATC_2.
C) the plant associated with ATC_3.
D) either the plant associated with ATC_1 or with ATC_2.

5. Rhonda spends all her income on two goods: clothes and CDs. Place clothes on the vertical axis and CDs on the horizontal axis. Rhonda is currently consuming a bundle of the two goods, where the indifference curve is flatter than the budget line. To increase total utility, Rhonda, given her income, should:

A) increase her consumption of clothes and decrease her consumption of CDs.
B) increase her consumption of CDs and decrease her consumption of clothes.
C) do nothing—she is consuming a bundle on her budget line.
D) do none of the above—not enough information is given.

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6. In the accompanying table, the marginal cost of increasing production from 51 to 64 bushels of wheat is:

Points on graph	Quantity of labour (workers), *L*	Quantity of wheat (bushels), *Q*	Variable cost, *VC*	Fixed cost, *FC*	Total cost, *TC = FC + VC*
A	0	0	$0	$400	$400
B	1	19	200	400	600
C	2	36	400	400	800
D	3	51	600	400	1,000
E	4	64	800	400	1,200
F	5	75	1,000	400	1,400
G	6	84	1,200	400	1,600
H	7	91	1,400	400	1,800
I	8	96	1,600	400	2,000

A) $16.
B) $15.38.
C) $12.50.
D) $18.75.

7. Avery's total fixed cost is $1,800. Avery employs 10 workers and pays each worker $30. If labour is his only variable cost, what is Avery's total cost?

A) $3,600
B) $3,660
C) $4,800
D) $400

8. When Melissa asks Matt if he wants a pepperoni pizza and a coke or a vegetarian pizza and a tea, Matt says, “Oh, I'm indifferent.” This means:

A) Matt doesn't want pizza.
B) Matt thinks this bundle gives him the same utility.
C) Matt thinks this bundle gives him no utility.
D) Matt thinks the utility he gains from pizza exactly equals the cost.

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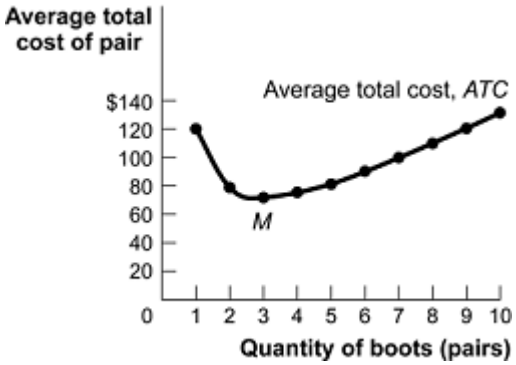
9. If an Ontario strawberry wholesaler is in a perfectly competitive market, that wholesaler will have a _____ share of the market, and consumers will consider her strawberries to be _____. Therefore, _____ advertising will take place in this market.

A) large; standardized; no
B) small; standardized; little, if any
C) small; differentiated; no
D) large; differentiated; extensive

10. Figure: Average Total Cost Curve



In the accompanying figure, the total cost of producing 3 pairs of boots is approximately:

A) $24.
B) $72.
C) $75.
D) $216.

11. A fixed cost:

A) will exist only in the long run.
B) is dependent of the level of output.
C) will be positive, even if the firm doesn't produce any output in the short run.
D) can be eliminated in the short run.

12. In a perfectly competitive industry, the market demand curve is usually:

A) perfectly inelastic.
B) perfectly elastic.
C) downward sloping.
D) relatively elastic.

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13. For ordinary goods, indifference curves:

A) never cross.
B) slope downward.
C) are convex from the origin.
D) are all of the above.

14. Consider a perfectly competitive firm in the short run. Assume that it is sustaining economic losses but continues to produce. At the profit-maximizing (loss-minimizing) output, all of the following statements are correct EXCEPT:

A) marginal cost is less than average total cost.
B) marginal cost is equal to marginal revenue.
C) price is equal to marginal cost.
D) marginal cost is less than average variable cost.

15. If it produces, a perfectly competitive firm will maximize profits where:

A) marginal revenue equals marginal cost.
B) marginal revenue equals price.
C) price equals average total cost.
D) price exceeds marginal cost.

16. The relationship between an individual's consumption bundle and his/her "satisfaction" is called

A) a demand function.
B) a production function.
C) a consumption function.
D) a utility function.

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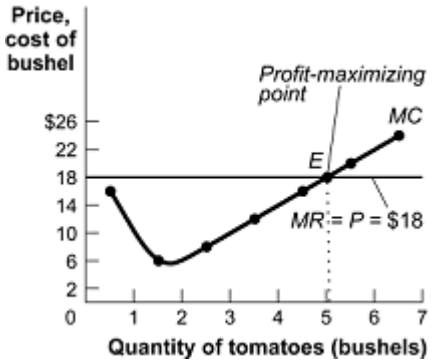
17. Total Cost and Output

Output	Total Cost
0	$10
1	60
2	80
3	110
4	170
5	245

The accompanying table describes Bart's perfectly competitive ice-cream-producing firm. If the market price is $67.50, how many units of output will the firm produce?

A) 1
B) 2
C) 3
D) 4

18. Marginal Revenue, Costs, and Profits



In the accompanying figure, if market price increases to $20, marginal revenue _____ and profit-maximizing output _____.
A) increases; increases
B) increases; decreases
C) decreases; increases
D) decreases; decreases

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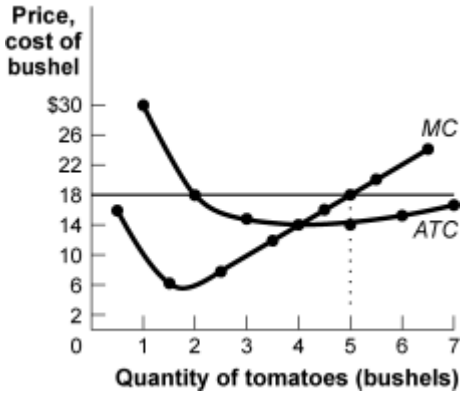
19. Cameron gets 6 units of utility from 1 slice of pizza and 10 units of utility from 2 slices of pizza. The principle of diminishing marginal utility implies that the total utility from 3 slices of pizza will be:

A) exactly 10 units of utility.
B) less than 16 units of utility.
C) less than 6 units of utility.
D) more than 12 units of utility.

20. Revenues, Costs, and Profits



In the accompanying figure, at the profit-maximizing quantity of output, total revenue is $_____, total cost is $_____, and profit is $_____.

A) 90; 72; 22
B) 90; 70; 20
C) 30; 42; 12
D) 48; 56; 8

21. The short-run industry supply curve:

A) shows the total quantity supplied by all firms in an industry for each possible price, when the number of producers is given.
B) is drawn on the assumption that the number of firms in the industry doesn't increase, but it allows for a decrease in the number of firms due to bankrupt firms leaving the industry.
C) is a meaningful concept only if all firms in the industry are identical.
D) is of limited usefulness, since it is not relevant when markets are perfectly competitive.

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22. Xavier notices that the marginal utility of working with a tutor seems to fall with each hour the tutor helps him study. If Xavier keeps the tutor until his grade actually begins to fall, his marginal utility will be:

A) negative.
B) positive, but rising more slowly.
C) zero.
D) immeasurable.

23. Austin spends all his income on food (*F*) and shelter (*S*). His budget line is given by the equation $5F + 20S = 100$. Which of the following consumption bundles is part of his consumption possibilities?

A) 8 units of *F* and 3 unit of *S*
B) 12 units of *F* and 2 units of *S*
C) 0 units of *F* and 5 units of *S*
D) all of the above

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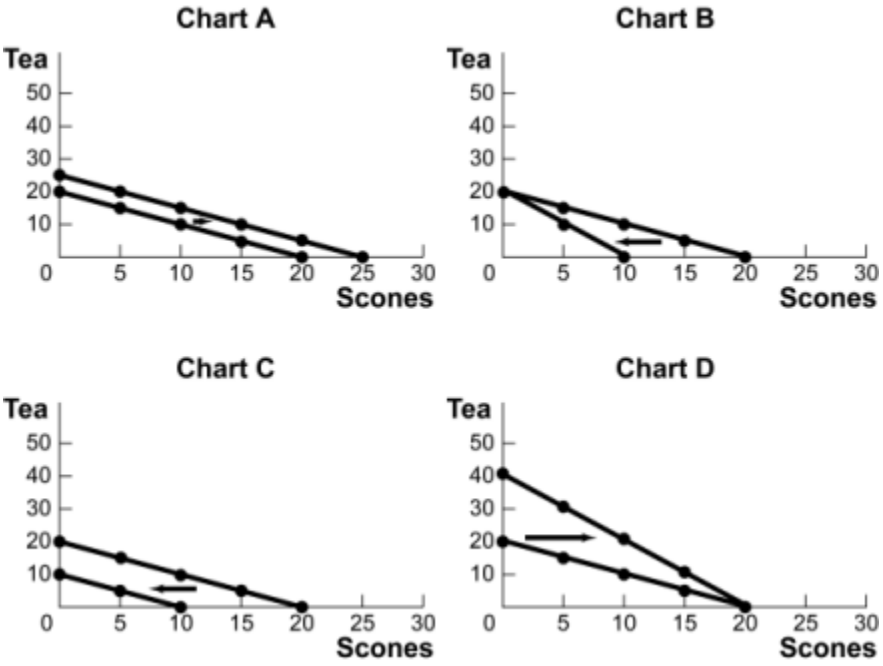
24. The Budget Line



For months now, Agnes has had $20 per month to spend on tea and scones. The price of a cup of tea has been $1, and the price of a scone has also been $1. Which of the charts in the accompanying figure shows what will happen to her budget line if her income increases to $25?

A) Chart A
B) Chart B
C) Chart C
D) Chart D

25. If *A* and *B* are two consumption bundles, which of the following statements is consistent with utility being an ordinal, rather than a cardinal, concept?

A) *A* provides me with twice as much satisfaction as *B*.
B) I prefer *A* to *B* by an amount equal to 6.5 utils.
C) I prefer *A* to *B*.
D) I prefer *B* to *A* by a very small margin—only 1.5 utils.

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Short answer question [2.5 marks]:

a) Use a graph to demonstrate the circumstances that would prevail in a perfectly competitive in the short run market where firms are earning economic profits. Identify costs, revenue, and the economic profit earned on your graph.

b) What would happen in the long run in this market? Draw the industry long-run supply curve assuming that all firms in the market are identical.