NAME _____

THE UNIVERSITY OF WESTERN ONTARIO
LONDON CANADA

E. Rivers **ECONOMICS 1021B-001** **March 18, 2012**

MIDTERM #2

INSTRUCTIONS:

1. You will have **2 hours** to complete the exam.

2. Check that your examination contains 50 questions.

3. Use a **BLACK PENCIL** to complete your Scantron Form.

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

    ii. Enter your **STUDENT NUMBER**

    iii. Enter your **SECTION NUMBER** – 001

    iv. Ensure that the **VERSION CODE** on your question packet matches the version code on your Scantron Form.

    In order to get credit for a question, you must record the correct answer on your Scantron Form. No credit will be given for answers recorded in your question packet.

4. You may have pencils, erasers, your student card, and a *non-graphing, non-programmable* calculator at your desk. All other items must be left in your bag at the front of the examination room.

5. Please ensure that all electronic devices (cell phones, laptops, etc.) are turned off before storing them in your bag at the front of the examination room.

6. There are no washroom breaks allowed during the test.

7. **WHEN YOU HAVE FINISHED, PLEASE HAND IN ALL EXAM MATERIALS (YOUR SCANTRON FORM, YOUR QUESTION PACKET, AND ALL SCRAP PAPER YOU HAVE BEEN PROVIDED).**

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

Use the figure below to answer the following question.

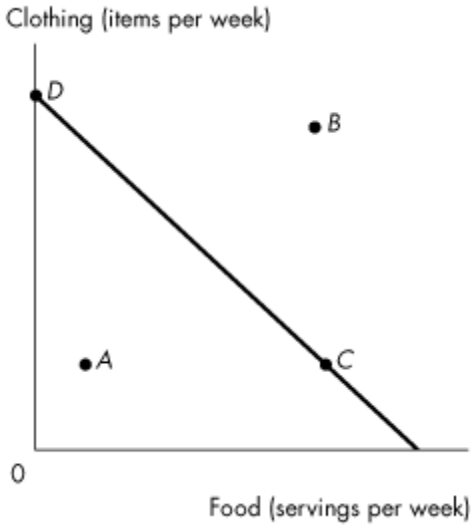

Figure 1

1) Shelly's budget line is shown in Figure 1 Which point is unaffordable given her income and current prices?
   A) *A* and *B*
   B) *B* only
   C) *C* only
   D) *C* and *D* only
   E) All points are unattainable.

2) David has an income of $30 to buy movie tickets and bus tickets. The price of a movie ticket is $6 and the price of a bus ticket is $2. What is David's real income?
   A) $32
   B) $38
   C) $30
   D) 5 movie tickets or 15 bus tickets
   E) 15 movie tickets or 5 bus tickets

3) David has an income of $30 to buy movie tickets and bus tickets. The price of a movie ticket is $6 and the price of a bus ticket is $2. What is the relative price of a bus ticket in terms of movie tickets?
   A) 1/3 movie tickets
   B) 15 movie tickets
   C) $6
   D) $3
   E) 2 movie tickets

4) The magnitude of the slope of the budget line is the
A) relative price of the good measured on the horizontal axis.
B) price of the good measured on the vertical axis.
C) absolute price of the good measured on the horizontal axis.
D) real price of the good measured on the vertical axis.
E) relative price of the good measured on the vertical axis.

5) Suppose all prices double and income also doubles. Which statement is true?
A) The budget line shifts rightward.
B) The slope of the budget line increases.
C) The budget line does not change.
D) The slope of the budget line decreases.
E) The budget line shifts leftward.

6) Larry consumes only beer (B) and chips (C). The equation of his budget line (with beer measured on the vertical axis) is
A) $QB = Y - (P_C/P_B)Q_C$.
B) $Q_B = Y/P_B - (P_C/P_B)Q_B$.
C) $Q_B = Y/P_B - (P_C/P_B)Q_C$.
D) $QC = Y/P_C - (P_B/P_C)Q_B$.
E) $Q_B = Y/P_C - (P_B/P_C)Q_C$.

7) An indifference curve is
A) a line that shows combinations of goods among which a consumer is indifferent.
B) the boundary between normal goods and inferior goods.
C) the boundary between what a consumer can afford and what he cannot afford.
D) the boundary between what can be produced and what cannot be produced.
E) a line with a positive slope.

Use the figure below to answer the following question.

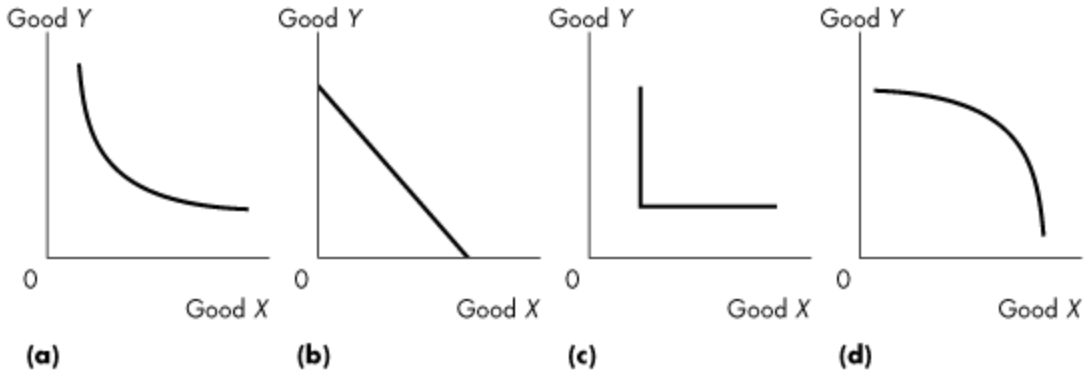

Figure 2

8) Which of the indifference curve graphs in Figure 2 shows perfect complements?
A) (a) B) (b) C) (c) D) (d) E) (c) and (d)

9) A constant marginal rate of substitution between two goods implies
A) one good is normal and one good is inferior.
B) the goods are perfect complements.
C) the goods are perfect substitutes.
D) the goods are imperfect substitutes.
E) the goods are both inferior.

Use the figure below to answer the following question.

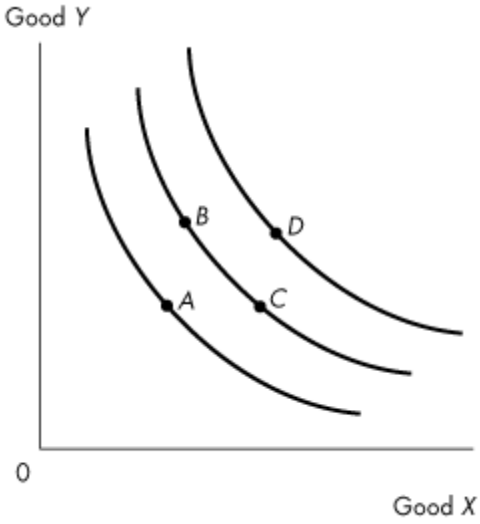

Figure 3

10) Figure 3 shows three indifference curves for Brenda. Which one of the following is *not* true?
A) Brenda prefers consuming at point *B* to consuming at point *A*.
B) Brenda prefers consuming at point *D* to consuming at point *A*.
C) The marginal rate of substitution is higher at point *C* than at point *B*.
D) Brenda prefers consuming at point *D* to consuming at either point *B* or point *C*.
E) Brenda would be equally happy consuming at either point *B* or point *C*.

11) At the best affordable point, which statement is true?
A) The marginal rate of substitution between two goods equals their absolute price.
B) The highest affordable indifference curve has the same intercept as the budget line.
C) The slope of the indifference curve equals the slope of the budget line.
D) Other points on the same indifference curve are affordable but not preferred.
E) Some income is not spent.

Use the figure below to answer the following question.

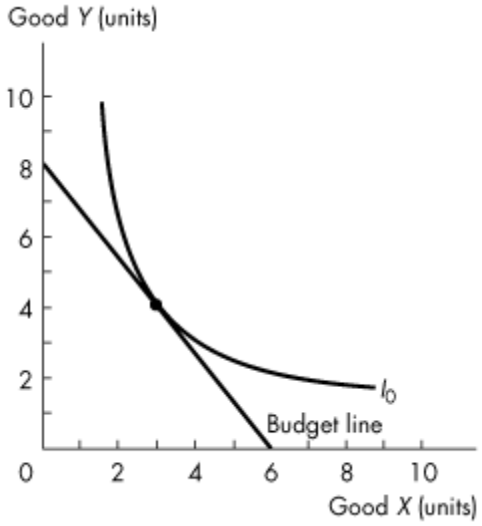

Figure 4

12) Consider the budget line and indifference curve in Figure 4. If the price of good *X* is $1 a unit, then the price of good *Y* is
A) $2 a unit.
B) $0.75 a unit.
C) $1 a unit.
D) $1.25 a unit.
E) $1.33 a unit.

13) The short run is a time frame in which
A) the amount of output produced is fixed.
B) there is a shortage of most factors of production.
C) at least one factor of production is fixed.
D) the firm is not able to hire more workers.
E) there is not enough time to make all of the decisions necessary to maximize profit.

Use the figure below to answer the following question.

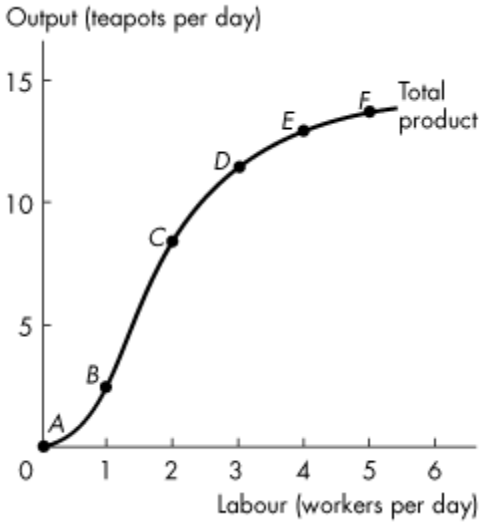

Figure 5

14) Refer to Figure 5 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

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

Use the table below to answer the following question.

Table 1

Labour (workers per day)	Output (teapots per day)	TFC (dollars per day)	TVC (dollars per day)	TC (dollars per day)
0	0	20	0	20
1	4	20	?	45
2	9	20	?	70
3	13	20	?	95
4	16	20	100	?
5	18	20	125	145

16) Refer to Table 1, which gives Tania's total cost schedule. When output increases from 4 to 9 teapots, the marginal cost of one of the 5 teapots is
A) $25. B) $5. C) $4. D) $4.25. E) $6.25.

Use the figure below to answer the following question.

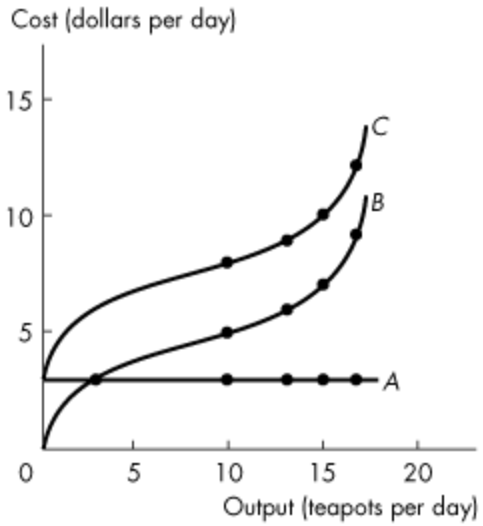

Figure 6

17) Refer to Figure 6. Which one of the following statements is *false*?
A) Marginal cost is equal to the slope of curve *C*.
B) Total fixed cost is constant.
C) The total fixed cost curve is labeled *A*.
D) Total variable cost and total cost both increase with output.
E) The vertical gap between curves *B* and *C* is equal to total variable cost.

Use the figure below to answer the following question.

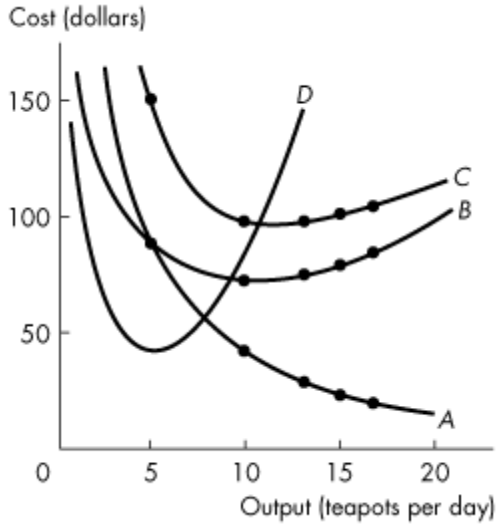

Figure 7

18) Refer to Figure 7, which illustrates short-run average and marginal cost curves. Which one of the following statements is *false*?
A) Average fixed cost decreases with output.
B) Curve *D* is the marginal cost curve.
C) Line *B* comes closer to line *C* as output increases because of a decrease in average fixed cost.
D) The vertical gap between curves *B* and *C* is equal to average fixed cost.
E) The vertical gap between curves *B* and *C* is equal to average variable cost.

19) If the average variable cost of producing 10 units is $18 and the average variable cost of producing 11 units is $20, we know that, between 10 and 11 units of output,
A) average total cost is increasing.
B) average fixed cost is increasing.
C) total cost is either increasing or decreasing.
D) marginal cost is increasing.
E) none of the above.

20) An increase in the cost of labour shifts the
A) total, average, and marginal product curves downward and total, average, and marginal cost curves upward.
B) total, average, and marginal product curves downward and total, average, and marginal cost curves downward.
C) total, average, and marginal product curves upward and total, average, and marginal cost curves downward.
D) total, average, and marginal product curves upward and total, average, and marginal cost curves upward.
E) none of the above.

21) Suppose a candy manufacturer can triple its production of fudge by doubling its production facility for making fudge. This indicates the presence of
A) the law of diminishing returns.
B) economies of scale.
C) constant returns to scale.
D) diseconomies of scale.
E) market constraints.

Use the figure below to answer the following question.

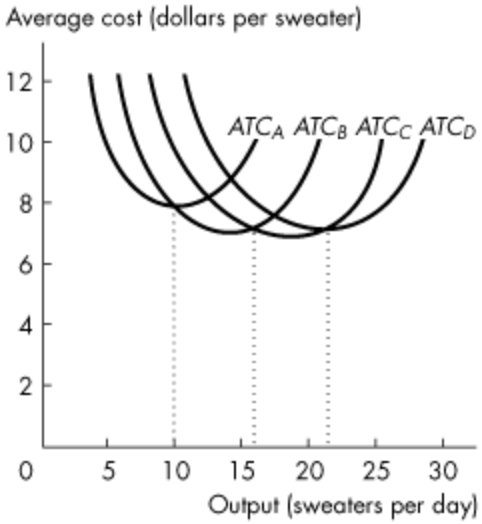

Figure 8

22) Refer to Figure 8, 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 figure below to answer the following question.

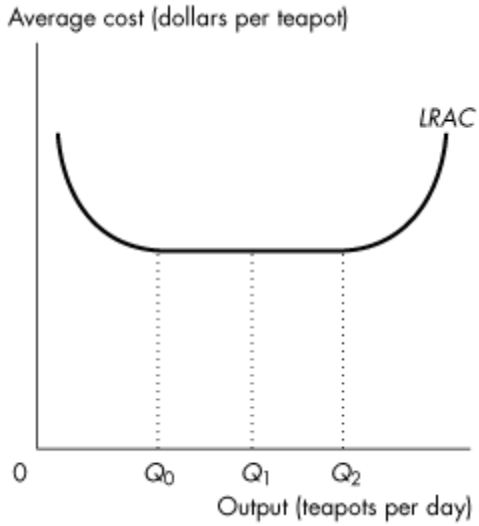

Figure 9

23) Refer to Figure 9, which illustrates the long-run average total cost curve. Which one of the following statements is *false*?
A) Diseconomies of scale exist between 0 and $Q1$ units of output.
B) Constant returns to scale exist between $Q1$ and $Q2$ units of output.
C) Constant returns to scale exist between $Q0$ and $Q1$ units of output.
D) Diseconomies of scale exist at quantities greater than $Q2$ units of output.
E) Economies of scale exist between 0 and $Q0$ units of output.

24) Assume that the leather market is a perfectly competitive market. The market demand curve for leather is _____ and each individual leather producer's demand curve is _____.
A) horizontal; horizontal
B) horizontal; downward sloping
C) downward sloping; horizontal
D) vertical; downward sloping
E) downward sloping; vertical

25) For perfect competition to arise, it is necessary that market demand be
A) elastic.
B) small relative to the minimum efficient scale of a single firm.
C) large relative to the minimum efficient scale of a single firm.
D) perfectly elastic.
E) inelastic.

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

26) 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) $15. C) $30. D) $10. E) $25.

27) 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 $60.
B) makes an economic profit of $9.
C) incurs an economic loss of $69.
D) makes an economic profit of $60.
E) incurs an economic loss of $9.

Use the table below to answer the following question.

Table 3

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

28) Refer to Table 3, 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) $22 an hour.
B) $40 an hour.
C) $10 an hour.
D) $0.
E) $12 an hour.

29) In a perfectly competitive market, a firm maximizes its profit by producing the quantity of output at which
A) market price equals average fixed cost.
B) market price equals marginal revenue.
C) market price equals minimum average variable cost.
D) market price equals marginal cost.
E) average variable cost equals average fixed cost.

30) If a perfectly competitive firm in the short run is able to pay its variable costs and all of its fixed costs and more, then it is operating in the range on its marginal cost curve that is
A) below the break-even point.
B) between the shutdown and break-even points.
C) below the shutdown point.
D) above the shutdown point.
E) above the break-even point.

Use the figure below to answer the following question.

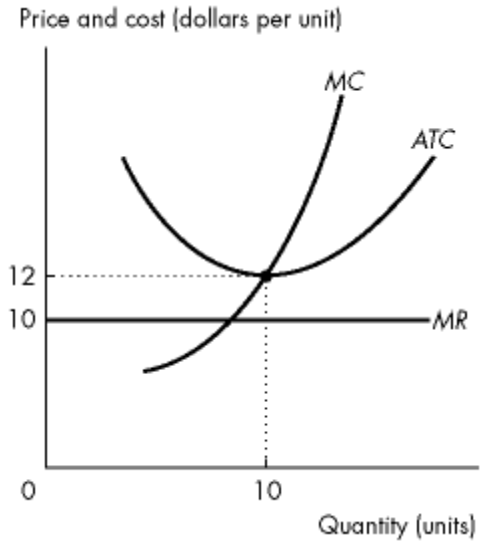

Figure 10

31) 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, the firm will
A) incur an economic loss.
B) exit from the industry.
C) close down.
D) break even.
E) make an economic profit.

Use the figure below to answer the following question.

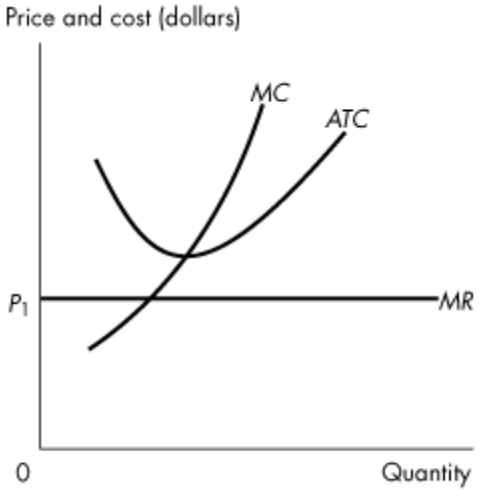

Figure 11

32) Refer to Figure 11 which shows the cost curves and marginal revenue curve of a firm in a perfectly competitive industry. Firms are
A) making an economic profit, and some firms enter the industry. Industry supply increases.
B) incurring an economic loss, and some firms enter the industry. Industry supply increases.
C) making an economic profit, and some firms leave the industry. Industry supply decreases.
D) incurring an economic loss, but since they are covering average variable cost, no one will exit the industry in the long run.
E) incurring an economic loss, and some firms leave the industry. Industry supply decreases.

33) Firms will stop exiting an industry only when
A) marginal revenue equals price.
B) marginal revenue equals average fixed cost.
C) all remaining firms are making an economic profit.
D) all remaining firms are making zero economic profit.
E) marginal revenue equals marginal cost.

34) A perfectly competitive industry, with no external economies or diseconomies, is initially in long-run equilibrium. There is a permanent decrease in demand. After adjustment to the new long-run equilibrium
A) the remaining firms in the industry will each be producing less output than previously.
B) the remaining firms in the industry will each be producing the same output as previously.
C) the remaining firms in the industry may each be producing more output than previously, depending on the size of the change in demand.
D) the remaining firms in the industry will each be producing more output than previously.
E) the remaining firms in the industry will each be producing either the same or more output than previously.

35) A monopoly arises for two key reasons, which are _____.
A) natural and legal
B) barriers to entry and close substitutes
C) franchises and barriers to entry
D) close substitutes and no barriers to entry
E) barriers to entry and no close substitutes

36) In a natural monopoly, the long-run average cost curve
A) is horizontal in the relevant range of output levels.
B) is downward sloping in the relevant range of output levels.
C) is upward sloping in the relevant range of output levels.
D) lies below the marginal cost curve.
E) may be either upward sloping or downward sloping in the relevant range of output levels.

37) To increase sales from 3 units to 4 units, a single-price monopolist must drop the price from $7 per unit to $6 per unit. What is marginal revenue in this range?
A) $24 B) -$3 C) $6 D) $3 E) -$1

Use the figure below to answer the following questions.

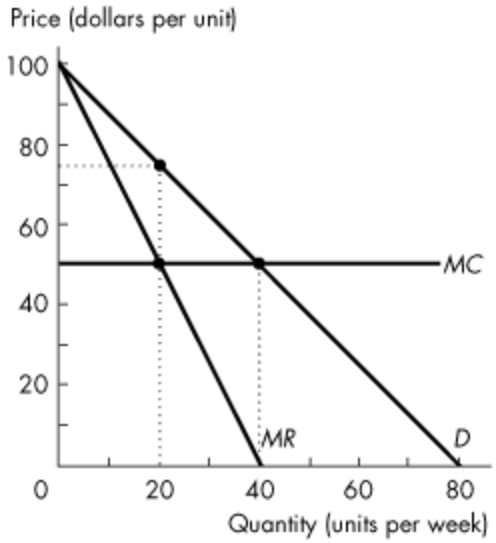

Figure 12

38) Refer to Figure 12. If this market were perfectly competitive, the output level would exceed the single-price monopoly output level by
A) zero. The perfectly competitive firm and the single-price monopoly produce the same quantity because marginal cost is constant.
B) 30 units.
C) 20 units.
D) 60 units.
E) 40 units.

39) Refer to Figure 12. The efficient quantity is
A) 60 units. B) 80 units. C) zero units. D) 40 units. E) 20 units.

Use the figure below to answer the following question.

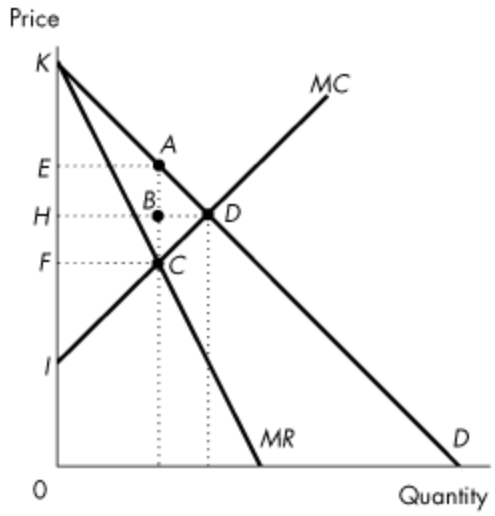

Figure 13

40) Refer to Figure 13. What is the redistribution of surplus from consumers to the producer with a single-price monopoly, as compared to a perfectly competitive market?
A) *EADH*
B) *EABH - BCD*
C) *ACD*
D) *EABH*
E) *ABD*

41) A monopoly can practice price discrimination when it
A) can segment the market according to the different prices the consumers are willing to pay.
B) is a price taker.
C) has decreasing average variables cost.
D) produces a good with close substitutes.
E) has different marginal costs of production for different output levels.

Use the figure below to answer the following question.

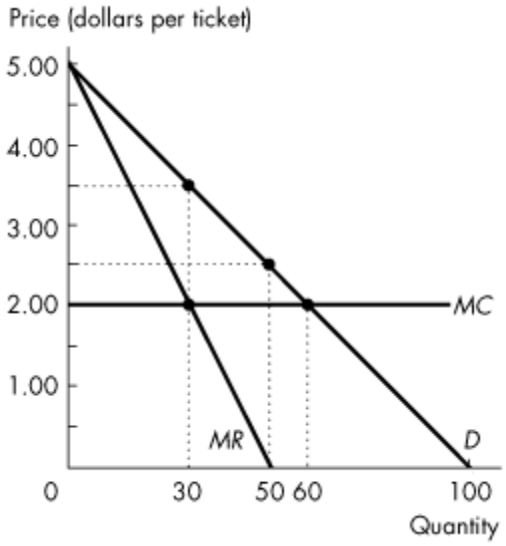

Figure 14

42) Refer to Figure 14. Assume this monopolist practices perfect price discrimination. What is the lowest price charged for tickets?
A) $1.00 B) $3.50 C) $3.00 D) $2.00 E) $0

43) A perfect price-discriminating monopoly produces
A) less than a single-price monopoly.
B) the same amount as a perfectly competitive industry.
C) more than a perfectly competitive industry.
D) more than a single-price monopoly but less than a perfectly competitive industry.
E) less than a monopoly that practices price discrimination but not perfect price discrimination.

44) A monopolistically competitive firm is able to influence the price of what it sells because of
A) inelastic demand.
B) economies of scale.
C) the fact there are many buyers.
D) barriers to entry.
E) product differentiation.

Use the figure below to answer the following questions.

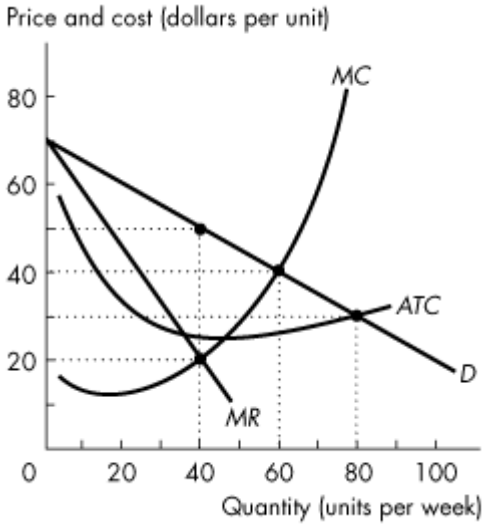

Figure 15

45) Refer to Figure 15. If this firm is in monopolistic competition, it will produce an output level
A) that is impossible to determine without information concerning the rival firms.
B) of 40 units.
C) that is less than 40 units.
D) of 60 units.
E) of 80 units.

46) Refer to Figure 15. If this firm is in monopolistic competition, then it will charge a price
A) of $40 a unit.
B) of $20 a unit.
C) of $50 a unit.
D) of $30 a unit.
E) that is impossible to determine without information concerning the behaviour of the rival firms.

47) Mrs. Smiths bakery shop is a firm in monopolistic competition. If in the short-run Mrs. Smith incurs an economic loss, she will keep producing as long as
A) marginal revenue is greater than or equal to average variable cost.
B) price is equal to marginal cost.
C) price is less than average variable cost.
D) marginal revenue is less than average variable cost.
E) price is greater than or equal to average variable cost.

48) Mrs. Smiths bakery shop is a firm in monopolistic competition. She is currently selling a box of bread for $16. The firm's marginal cost is $7 and marginal revenue is $7. To maximize economic profit Mrs. Smith
A) increases output so that marginal cost exceeds marginal revenue.
B) decreases output so that marginal revenue exceeds marginal cost.
C) decreases output so that marginal cost equals the output price.
D) shuts down.
E) continues to produce the same level of output.

49) In the long run, a monopolistically competitive firm produces the output at which price equals
A) average total cost.
B) average variable cost.
C) marginal revenue.
D) marginal cost.
E) B and D.

50) When firms in monopolistic competition make an economic profit
A) firms enter the industry, which increases demand for the product of the firms originally in the market.
B) firms exit the industry, and demand increases for the products of the firms that remain.
C) firms enter the industry, and demand decreases for the firms that were originally in the industry.
D) eventually the market will become a monopoly.
E) firms exit the industry, and demand decreases for the firms that remain in the industry.

Answer Key
Testname: 1021B001MT2MAR12

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