Instructions:
I) On your Scantron card you **must** print three things:
   1) Print your full name clearly;
   2) Print the day and time of your section (for example MW 1:25);
   3) Notice the number I have written in ink in the upper right corner of your test? Write that number on the Scantron card. (This number tells me which version of the test you have. Without it your test cannot be graded properly and you get no credit for your answers.)
II) Answer on your Scantron card, using a #2 pencil.
III) Warning: SOME QUESTIONS MUST BE ANSWERED SEVERAL TIMES! Such questions will begin with a phrase such as this: **Repeat this answer on lines 37, 38 and 39.** Remember to do it!
IV) You must turn in this written exam along with your Scantron card or else receive an F for the course.

Questions:

1. **(Repeat answer on Scantron lines 27 and 28.)** The additional cost of producing one more unit of output is called:
   A) variable cost.
   B) total cost.
   C) average cost.
   D) marginal cost.

2. **(Repeat answer on Scantron line 29.)** Variable costs:
   A) do not exist in the long run.
   B) are the only costs that exist in the long run.
   C) do not exist in the short run.
   D) are the only costs that exist in the short run.

3. If MC = AVC, then:
   A) AVC is at its low point.
   B) MC is at its low point.
   C) AVC is rising.
   D) AVC is falling.
Use the following to answer question 4:

The average variable cost (AVC) curve is labeled:
A) I.
B) II.
C) III.
D) IV.

Price discrimination intended to lessen competition was declared illegal by the:
A) Sherman Antitrust Act of 1890.
B) Clayton Antitrust Act.
D) Merger Act.

Choose the best answer. The Wealth of Nations
A) is the phrase used to stand for a crucial concept in economics, namely the economics of the growth, progress and development of nations.
B) is the title of a Table maintained by the International Bank for Cooperation and Development (usually called The World Bank). As mentioned in lecture, The Wealth of Nations table summarizes the standard of living in every nation in the world.
C) was published in 1776 and was written by John Kenneth Galbraith, and was the first book attempting to describe the fundamental principles of economics.
D) was published in 1776 and was written by the moral philosopher Adam Smith, and was the first book attempting to describe the fundamental principles of economics.
E) is the title of an important textbook in economics--the most important competitor to the text we are using in this course.
7. A highly competitive market consisting of many firms selling differentiated products is:
   A) an oligopoly.
   B) monopolistically competitive.
   C) a pure monopoly.
   D) perfectly competitive.

Use the following to answer question 8:

8. (Repeat answer on Scantron line 33.) Refer to the graph above of a monopolistic competitor. The average total cost curve is represented by curve:
   A) A.
   B) B.
   C) C.
   D) D.

9. (Repeat answer on Scantron line 34.) Economic models provide a prediction of a unique price and quantity in all of the following market structures except:
   A) oligopoly.
   B) monopolistic competition.
   C) perfect competition.
   D) monopoly.

10. To prevent price wars and enhance profits, firms in an oligopolistic market industry may:
    A) encourage foreign competition.
    B) accept the price in the marketplace.
    C) establish a contestable market.
    D) cooperate with each other by fixing prices.
11. (Repeat answer on Scantron lines 35 and 36.) If the supply curve is vertical the burden of a tax on suppliers is borne:
   A) entirely by the suppliers.
   B) entirely by the consumers.
   C) mostly by the suppliers, and partly by the consumers, if the demand curve is inelastic.
   D) partly by the suppliers, and mostly by the consumers, if the demand curve is elastic.

12. Select the best answer. The Fundamental Theorem of Welfare Economics tells us, roughly,
   A) that high welfares are very important to the individuals who live in an advanced economy.
   B) that you cannot have more of one thing without having less of at least one other thing.
   C) that high welfares are important, but are not everything.
   D) that an economic system with many buyers and many sellers in all markets will be maximally efficient.
   E) that the existence of money is crucial if an economy is to achieve high incomes.

13. (Repeat your answer on Scantron lines 37 and 38.) Suzy has just finished her economics exam and must decide whether to spend two hours a) going to the sauna, b) having a couple of margaritas, or c) going to a movie. She can do one, all, or any two of these things. The question is, what should she do? Here is the data: The marginal utility of the sauna is 40 utils and the price is $10. The marginal utility of the two margaritas is 36 utils and the price is $9 for two margaritas. The marginal utility of going to the movie is 60 utils and the price is $10. Suzy's marginal utility of a dollar is 5 utils per dollar. Choose the best answer from A) through E).
   A) Suzy's should go to the sauna and go to the movie, but not drink the margaritas.
   B) Suzy should go to the movie but should not do either of the other things.
   C) Suzy should go to the sauna and have the margaritas, but not go to the movie.
   D) Suzy should do all three things.
   E) Suzy should drink the margaritas and go to the movie, but not go to the sauna.
Use the following to answer question 14:

**Labor-Leisure Choice Diagrams**

Figure 1  
Figure 2  
Figure 3  

Figure 4  
Figure 5  
Figure 6  

Figure 7  
Figure 8  
Figure 9
14. (Repeat answer on Scantron lines 39 and 40.) Refer to the 9 Labor-Leisure Choice diagrams above, and decide which of the following statements are correct.
1) Figures 1 and 4 illustrate a change in non-wage income accompanied by no change in the wage rate.
2) Figures 5, 6 and 8 illustrate individuals who have become unemployed because of welfare programs.
3) None of the nine figures illustrates the impact of a "wage supplement" style of welfare program.
A) All three statements are correct.
B) Just one of the three statements is correct.
C) Statements 2 and 3 are correct, but not 1
D) Statements 3 and 1 are correct, but not 2
E) Statements 1 and 2 are correct, but not 3.

15. (Repeat answer on Scantron line 41.) A monopolist engages in price discrimination to:
A) increase output beyond the profit-maximizing level.
B) further restrict output to increase its profits.
C) allow some persons to purchase the good who could not normally afford to do so.
D) earn more profit than would be possible if every buyer paid the same price.

16. (Repeat answer on Scantron line 42.) With a natural monopoly:
A) consumers may be better off with a single firm charging a monopoly price than with many firms charging a competitive price.
B) consumers would definitely be better off with many firms charging a competitive price than with a single firm charging a monopoly price.
C) it would not matter whether the market it supplied by a single firm or by many firms.
D) a single firm would be unable to earn a profit.

17. (Repeat answer on Scantron line 43.) The market demand curve in a perfectly competitive industry is normally:
A) a vertical line.
B) upward sloping.
C) a horizontal line.
D) downward sloping.
18. (Repeat your answer on Scantron line 44.) Refer to Diagram X1 and choose the best answer. (The vertical axis in panel A is not labeled, but you know what the curves are by their shape.)

A) Only the firm in panel A will shut down in the long run.
B) Only the firm in panel B will shut down in the long run.
C) Both firms will keep operating.
D) Neither firm will keep operating.
E) These diagrams do not show whether a firm should shut down. You must use different diagrams.
19. (Repeat your answer on Scantron line 45.) Refer to the graph above. If the firm originally set itself up to produce 300 and now desires to expand its output to 600 units, it will
A) use the short run curve represented by SATC2 at first, but eventually (in the long run) start using SATC3 as the short run curve.
B) use the short run curve represented by SATC2 both at first and after the long run completion of the expansion.
C) use the short run curve represented by SATC3 both at first and after the long run completion of the expansion.
D) use the short run curve represented by SATC1 at first, but eventually (in the long run) start using SATC2 as the short run curve.
E) use some other short run curve, not shown, rather than use SATC1, SATC2, SATC3 or SATC4.

20. The long-run average cost curve will:
A) always be either below or just touching the short-run average total cost curve.
B) always be above or just touching the short-run average total cost curve.
C) always be just touching the short-run average total cost curve at every point.
D) sometimes be above and sometime below the short-run average total cost curve.
Use the following to answer question 21:

![Graph showing a demand curve (D), marginal cost (MC), and average cost (AC) curves.]

21. **(Repeat answer on Scantron line 46.)** Refer to the graph above. If this monopolist were allowed to choose the profit-maximizing level of output, it would charge a price of:
   A) $11.50.
   B) $9.
   C) $8.
   D) $5.50

22. **(Repeat answer on Scantron line 47.)** A perfectly competitive firm in the long-run earns ________ normal profits but ________ economic profits.
   A) negative; zero
   B) positive; zero
   C) positive; positive
   D) zero; zero

23. **(Repeat answer on Scantron line 48.)** The profit-maximizing condition of a perfectly competitive firm is:
   A) MC = ATC.
   B) MR = AVC.
   C) MC = MR.
   D) MC = AVC.
Use the following to answer question 24:

![Graph showing cost curves: MC, ATC, MR, and a demand curve]

24. (Repeat answer on Scantron line 49.) Refer to the graph above. Which rectangle(s) represents the monopolist's profit?
   A) A.
   B) A + B + C.
   C) C + D.
   D) None of the above.

25. Which of the following is the most likely reason the U.S. government offers patent protection on major innovations?
   A) Patents create a strong incentive for firms to innovate.
   B) Firms with patents earn higher profits and can pay higher taxes.
   C) Markets operate more efficiently when economic profits are positive.
   D) The firm holding a patent will become a monopoly, which is a market structure associated with greater efficiency than any of the others.

26. (Repeat answer on Scantron line 50.) When the average variable cost curve lies above the marginal cost curve, average variable cost is:
   A) rising.
   B) falling.
   C) zero.
   D) constant.
Answer Key

1. D
2. B
3. A
4. B
5. B
6. D
7. B
8. D
9. A
10. D
11. A
12. D
13. B
14. B
15. D
16. A
17. D
18. B
19. D
20. A
21. A
22. B
23. C
24. A
25. A
26. B