## Midterm Examination on Thursday, October 24, 2019

\*\*\*\*Review Session, Monday, October 21st, 7 p.m. Gardner Hall 008

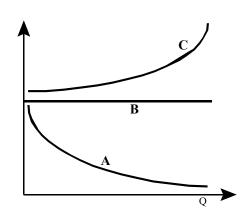
For Exam: Students are responsible for text material (Chapters 7, 8, 10, 11, 20, 28, 34), relevant lecture material, exercises, and all handouts.

Bring to Exam: (1) #2 pencil with functioning eraser, (2) calculator (for numerical calculations only)

Economics 101 Professor Turchi

## PRACTICE E X A M 2

(Fall 2019)



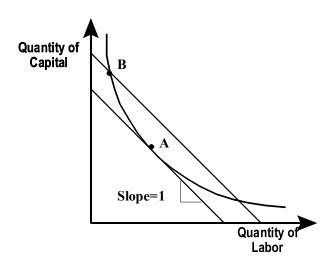
- 1. In the above graph, which curve could be an average fixed cost (AFC) curve?
  - a) curve A
- b) curve B
- c) curve C
- d) any of the curves could be an AFC curve
- The long-run average cost curve (LRAC) of all short-run average cost curves (SRAC)
  - a) can be found by connecting the minimum points
- c)forms the lower envelope

b) is an average

d)forms the upper envelope

- 3. A production isoquant gives all possible
  - a) combinations of inputs to obtain a given quantity of output
- c) outputs obtainable from a given quantity of inputs
- b) expenditures to obtain a given quantity of output
- d) outputs obtainable from a given expenditure level

- Variable costs are
  - a) zero in the long run
- b) always increasing
- c) greater than fixed costs d) total costs in the long run
- 5. A cost-minimizing firm using capital and labor as inputs, wishing to expand output, must
  - a) increase the quantity of both inputs
  - b) increase the quantity of at least one input, and increase expenditures
  - c) reduce costs in order to stay on its expenditure line
  - d) reduce profit margins to remain competitive



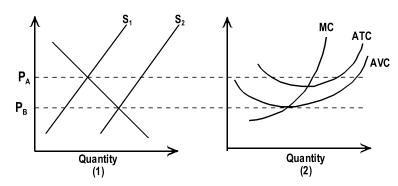
- 6. At point B in the above graph,
  - a) the marginal product of labor exceeds the marginal product of capital
  - b) the marginal product of capital exceeds the marginal product of labor
  - c) the marginal product of labor divided by the price of labor is less than the marginal product of capital divided by the price of capital
  - d) the marginal product of labor divided by the price of labor is equal to the marginal product of capital divided by the price of capital
- 7. The production function shows the
  - a) minimum quantity of output possible for a given expenditure
  - b) minimum expenditure necessary for a given quantity of output
  - c) marginal product at any level of output
  - d) maximum quantity of output obtainable from given quantities of inputs
- 8. If marginal cost exceeds marginal revenue, a profit-maximizing firm will
- a) increase output
- b) reduce output
- c) hire more workers
- d) decide to satisfice, rather than maximize profits
- 9. When fixed costs increase, a profit-maximizing firm will
  - a) raise the price of its output
- c) increase its output
- b) reduce its variable costs
- d) leave price and output unchanged
- 10. Returns to scale can be identified by the slope of the curve.
  - a) short run fixed cost (SRFC)
- c) long run fixed cost(LRFC)
- b) short run average cost (SRAC)
- d) long run average cost (LRAC)

Quantity	Price (dollars)	Total Cost (dollars)
1	6	1
2	5	2.5
3	4	6
4	3	7
5	2	11

- 11. A firm has the demand and total cost schedules given in the above table. If it wants to maximize profits, how much output should it produce?
  - a) 1 unit of output
- b) 2 units of output
- c) 3 units of output
- d) 4 units of output
- 12. Fluff leaves his \$50,000 a year caddying position and invests his savings of \$100,000 (on which he was earning 5 percent interest) buying a new driving range. After operating expenses, his net income for the year was \$56,000. His economic profit is
  - a) \$56,000
- b) \$ 6,000
- c) \$ 1,000
- d) \$ 0

- A firm has positive fixed cost and positive variable cost. At its current level of output, marginal cost equals average cost. The firm
  - a) must not be producing at its profit-maximizing level of output
  - b) must be producing the quantity that minimizes average cost
  - c) must be operating at a point at which total variable cost equals total fixed cost
  - d) must be earning negative profit
- 14. Because there are many firms in a competitive industry a firm's
  - a) marginal cost curve is horizontal

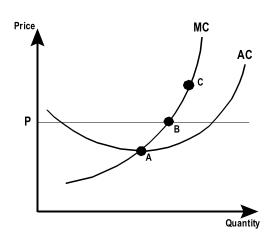
- c) marginal revenue equals marginal cost at all levels of output
- b) marginal revenue equals average revenue
- d) price exceeds its average cost



- 15. In the above figure, for a firm in a perfectly competitive industry, at price PA, the firm would
  - a) earn zero economic profit
- c) earn positive economic profit
- b) earn negative economic profit
- d) shut down
- 16. A competitive firm which is suffering losses will continue to produce in the short run as long as
  - a) marginal revenue is constant

- c) price exceeds average variable cost
- b) marginal cost exceeds marginal variable cost

- d) price exceeds average fixed cost
- 17. If a firm shuts down in the short run, its losses are equal to
  - a) TC-TR
- b) TFC
- c) TVC
- d) MC



- 18. In the above figure, through which point must a horizontal demand curve pass to yield a long-run equilibrium?
  - a) A
- b) B
- c) C
- d) any of the above is correct
- 19. In the above figure, output at which point represents short-run, but not long-run equilibrium?
  - a) A
- b) E
- c) C
- d) any of the above is correct
- 20. In long-run equilibrium, the perfectly competitive firm produces
  - a) where P = MC = AC.
  - b) at the lowest point on its long-run average cost curve.
  - c) where its long-run average cost curve is tangent to its horizontal demand curve.
  - d) all of the answers above are correct
- 21. In a free market, economic activity is coordinated by
  - a) central planners
- b) prices
- c) costs
- d) majority rule

- 22. If the poor cannot afford proper medical treatment, an economist, for reasons of efficiency, would favor
  - a) giving the poor added income to spend as they see fit
  - b) paying doctors bonuses to treat the poor
  - c) paying the medical bills of the poor
  - d) giving the poor "medical stamps"
- 23. In an idealized laissez-faire world, the distribution of products is
  - a) the most efficient
- c) purely random

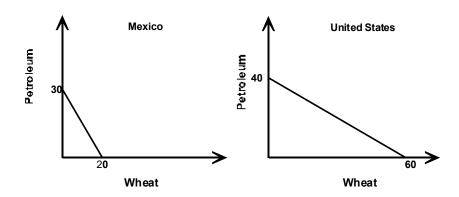
b) the most fair

- d) unpredictable
- 24. Tariffs are different from quotas because they
  - a) increase government revenue.

c) increase the quantity traded.

b) Increase profit.

d) place all the burden on foreigners.



- 25. In the above figure, the opportunity cost of one unit of
  - a) wheat in US is 2/3 unit of petroleum.
  - b) wheat in Mexico is 2/3 unit of petroleum.

- c) petroleum in Mexico is 3/2 unit of wheat.
- d) petroleum in US is 2/3 unit of wheat.

- 26. In the above figure,
  - a) Mexico has an absolute advantage over US in the production of both wheat and petroleum.
  - b) US has a comparative advantage over Mexico in the production of petroleum.
  - c) Mexico has a comparative advantage in the production of petroleum.
  - d) Mexico should export wheat to US, and US should export petroleum to Mexico.
- 27. If depositors become worried about the safety of their deposit accounts, they may trigger a
  - a) deposit surplus.
  - b) bank run.
  - c) fiscal policy crisis.
  - d) required reserve increase.
- 28. Money's principal function is to serve as a
  - a) standard for making loans.
  - b) standard for credit reporting.
  - c) medium of exchange.
  - d) method for storing wealth.
- 29. Fiat money is
  - a) always backed by gold or silver.
  - b) useful in buying Italian cars.
  - c) only backed by government decree.
  - d) not as liquid as precious metals.
- 30. The official definition of the money supply that includes coins, paper money, travelers' checks, conventional checking accounts, and other checkable deposits at banks and savings institutions is called .
  - a) M1
  - b) M2

- c) M3
- d) L
- 31. The major contribution of goldsmiths to the development of modern banking was
  - a) local banking.
  - b) market banking.
  - c) fractional reserve banking.
  - d) gold standard banking.
- 32. Excess reserves make a bank less vulnerable to runs, but bankers do not like to hold excess reserves because holding excess reserves
  - a) are disliked by depositors.
  - b) means lower profits for banks.
  - c) are discouraged by government regulators.
  - d) All of the above are correct.
- 33. If a bank has \$1,000,000 in reserves and checking deposits of \$3,000,000, what is the bank's reserve position if the required reserve ratio is 20 percent?
  - a) The bank has \$500,000 of required reserves and \$500,000 of excess reserves.
  - b) The bank has \$600,000 of required reserves and \$400,000 of excess reserves.
  - c) The bank has \$400,000 of required reserves and \$600,000 of excess reserves.
  - d) The bank has \$200,000 of required reserves and \$800,000 of excess reserves.
- 34. When a bank makes loans with excess reserves, it
  - a) creates money.
  - b) destroys money.
  - c) alters the composition of M1.
  - d) leaves the money supply unchanged.
- 35. When a banker accepts a deposit of \$1,000 in cash and puts \$200 aside as required reserves and then makes a loan of \$800 to a new borrower, this set of transactions
  - a) decreases the money supply by \$1,000.
  - b) decreases the money supply by \$200.
  - c) does not change the money supply.
  - d) increases the money supply by \$200.
  - e) increases the money supply by \$800.
- 36. If the banking system has \$5 million in excess reserves, and the required reserve ratio is 25 percent, what is the maximum amount by which the money supply can be increased?
  - a) \$25 million
  - b) \$20 million
  - c) \$5 million
  - d) \$2.5 million

## **Essay Questions**

The Internet has spawned thousands of small software companies -- often comprising only a single owner/programmer -- that supply all sorts of specialized programs to Microsoft Windows users around the world via the Internet. Users visit the company's web site, download the program for a trial period and, if they like it, pay a fee to continue using it. One such company is IDM Computer Solutions, Inc., a one-person company that has a single product, *UltraEdit-32*, a text editor that serves as a replacement for the editor in Windows, *Notepad*. The owner was an engineer working for a corporation and earning \$70,000 per year (2,000 hours of work time) before he quit working in 1994 to program the initial version of *UltraEdit-32*. Now the program is well established and each year the company puts out a revised version. 1998 was a typical year and the following cost and revenue figures apply: (For this problem ignore any wage growth and inflation that might have occurred)

Programming time for revision:

Equipment Depreciation:

Leased High Speed Telephone Line for web site:

1,500 hours per year
10,000 dollars per year
6,000 dollars per year

Time spent processing each purchase: 6 minutes

Price of one copy of *UltraEdit-32*: \$30

- a) (5 points) Suppose that IDM sells 3,500 copies of UltraEdit-32 per year. Compute the (1) total cost, (2) total fixed cost, (3) total variable cost, (4) average variable cost, (5) average fixed cost, (6) marginal cost, (7) total revenue and (8) economic profit for the firm.
- b) (5 points) What is the minimum number of copies of UltraEdit-32 that the firm must sell in order to break even (i.e., to earn zero economic profit)?
- c) (5 points) Suppose the firm's cost for leased high speed telephone lines doubled. How would that affect the number of copies of UltraEdit-32 that it should try to sell?
- d) (5 points) Suppose the firm shows an annual profit of \$30,000. What conditions would have to be true for this firm's profits to continue in the future? Can we expect the firm's profits to continue into the future? Why/Why Not?

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Answers to Multiple Choice Quest.				
Quest	Ans	Quest	Ans	
1	a	13	Ъ	
	c	14	b	
2 3 4 5 6 7 8	a	15	С	
4	d	16	c	
5	b	17	b	
6	a	18	a	
7	d	19	b	
8	b	20	d	
9	d	21	b	
10	d	22	a	
11	b	23	a	
12	С	24	a	
		25	a	
		26	С	
		27	b	
		28	c	
		29	С	
		30	a	
		31	c	
		32	Ъ	
		33	b	
		34	a	
		35	e	
		36	b	