Department of Economics
University of California, Davis
ECONOMICS 1A

Spring 2010 L. Jay Helms

Final Exam – Version A

Each of the 50 questions is worth 2 points.

Before you begin: On your Scantron form you *must* complete in the following. Failure to fill in these items accurately will prevent your exam from being graded correctly.

- Name: Last Name, First Name
- Subject: "Ecn 1A"
- Test No.: "3"
- Date: "6/9/2010"
- Hour: Your section number, for example, "B06"
- ID Number: Your nine-digit student ID number (written out and bubbled in)
- Test Form: Your exam version ("A") (bubbled in)

Instructions:

- Choose the *best* answer.
- You may write whatever you like on this exam paper, which you will be able to keep. However, you must answer the questions on your Scantron. You will be turning in ***only*** your Scantron form, ***not*** this exam paper.

Warning: Scantron errors may occur if you fail to erase an incorrect answer completely. Where erasures are incomplete and the Scantron machine—detecting two answers to the same question—marks your answer as wrong, no regrading can be allowed. It is your responsibility either to be certain of your answers before you mark them or to be very careful to erase completely any incorrect markings. You may wish to replace your Scantron form with a new one if you need to correct an error.

Multiple Choice Questions

Enter your answers only on your Scantron form, not on this test paper.

1. Suppose that the number of buyers in a market increases and there is also technological improvement in the production process. What would we expect in the market?
   a. The equilibrium price would increase, but the impact on the amount sold in the market would be ambiguous.
   b. The equilibrium price would decrease, but the impact on the amount sold in the market would be ambiguous.
   c. Both equilibrium price and quantity would increase.
   d. Equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.
   e. Equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.

2. If the government quadrupled the tax on gasoline, the deadweight loss from the gasoline tax would
   a. more than quadruple.
   b. quadruple.
   c. increase, but less than quadruple.
   d. remain unchanged.

3. Suppose someone makes the following statement: "Since the wealthy own more and therefore have more to protect than the poor, the wealthy should pay more to support law enforcement." This argument is based on:
   a. the vertical equity principle.
   b. the horizontal equity principle.
   c. the benefits principle.
   d. the ability-to-pay principle.
   e. the regressivity of taxation.

4. Markets are inefficient when negative *consumption* externalities are present because:
   a. social costs exceed private costs at the private market solution.
   b. private costs exceed social value at the private market solution.
   c. private benefits exceed social costs at the private market solution.
   d. consumption externalities lead to production externalities.

5. Internalizing a negative production externality will cause the demand curve faced by an industry to
   a. shift to the right.
   b. shift to the left.
   c. become more elastic.
   d. remain unchanged.

6. When there are no externalities, the *socially efficient* level of production occurs where the marginal cost curve intersects which of the following:
   a. the demand curve.
   b. the marginal revenue curve.
   c. the supply curve.
   d. the average cost curve.

7. An example of an *explicit* cost of production would be
   a. the cost of foregone labor earnings for an entrepreneur.
   b. the cost of flour for a baker.
   c. the value a business derives from using the owner's personal computer to keep payroll records.
   d. all of the above.
   e. none of the above.

8. A perfectly competitive firm is able to sell its product at a price of $18, and faces an average total cost of $20. In the short run
   a. the firm will shut down if *average* fixed costs are less than $2 *per unit*.
   b. the firm will shut down, but it will resume operations in the long run.
   c. the firm will shut down if *average* fixed costs are more than $2 *per unit*.
   d. the firm will shut down in all cases.
   e. the firm will continue to operate in all cases.

9. Which curve represents the marginal *private* cost of a firm when there are production externalities?
   a. the demand curve.
   b. the supply curve.
   c. the external cost curve.
   d. the social cost curve.

10. Horizontal equity
    a. is a concept which permits us to evaluate the efficiency of a tax system.
    b. is derived from the "benefit principle."
    c. states that similarly situated people should be treated similarly.
    d. states that differently situated people should be treated differently.
    e. states that differently situated people should be treated similarly.

11. "Willingness to pay" measures
    a. the amount a buyer is willing to pay for a good, minus the amount the buyer actually does pay for a good.
    b. the amount a seller actually receives for a good minus the minimum amount the seller is willing to accept.
    c. the maximum amount a buyer is willing to pay minus the minimum amount a seller is willing to accept.
    d. how much a buyer values a good.

12. Karl would pay as much as $7,000 for a BMW motorcycle. Instead, he buys a Suzuki for $4,200. Karl's consumer surplus from his purchase is
    a. $7,000.
    b. $4,200.
    c. $2,800.
    d. while the exact amount cannot be determined, it is more than $2,800.
    e. impossible to determine at all from the information given.

13. Public education is the largest single expenditure category for
    a. the federal government.
    b. state and local governments.
    c. both (a) and (b).
    d. neither (a) nor (b).

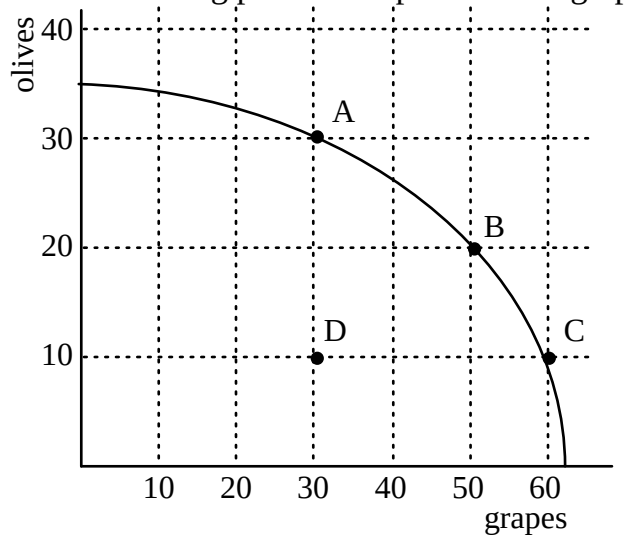
14. Suppose the elasticity of demand for cigarettes is 0.3, so that a tax on cigarettes will encourage consumers to consume somewhat fewer cigarettes. As a result,
    a. social well-being is improved from this kind of tax.
    b. the burden of this tax will fall entirely on cigarette producers.
    c. this tax causes a deadweight loss.
    d. the tax is considered non-distortionary.

15. Which of the following would *reduce* the shortage of a good?
    a. an increase in the number of consumers.
    b. a fall in the price of the good.
    c. a fall in the price of a substitute for the good.
    d. a fall in the price of a complement for the good.

16. When the price of gasoline rises 10 percent, the quantity of gasoline purchased falls by 8 percent. The demand for gasoline is
    a. perfectly elastic.
    b. elastic.
    c. unit elastic.
    d. inelastic.
    e. perfectly inelastic.

17. If marginal cost is less than average total cost, then average total cost is
    a. rising.
    b. falling.
    c. at its maximum.
    d. at its minimum.

18. Consider the following production possibilities graph.



The opportunity cost of getting 20 additional grapes by moving from D to B is
    a. 40 olives.
    b. 30 olives.
    c. 20 olives.
    d. 10 olives.
    e. 0 olives.

19. If a decrease in income increases the demand for a good, then
    a. the good is a substitute good.
    b. the good is a complement good.
    c. the good is a normal good.
    d. the good is inferior.
    e. the good is a luxury good.

20. If a good is a necessity, demand for the good would tend to be
    a. relatively elastic.
    b. relatively inelastic.
    c. perfectly elastic.
    d. none of the above.

21. If an increase in the price of a good results in an increase in total revenue for the firm, then
    a. the demand for the good must be elastic.
    b. the demand for the good must be inelastic.
    c. the supply of the good must be elastic.
    d. Nothing can be said about the price elasticity of demand from the information given.

22. If a tax is imposed on a market with inelastic demand and elastic supply,
    a. buyers will bear more of the burden of the tax.
    b. sellers will bear more of the burden of the tax.
    c. the burden of the tax will be shared equally between buyers and sellers.
    d. it is impossible to determine who will bear the larger burden of the tax.

23. If there is a binding price ceiling in the market,
    a. all buyers of the product will benefit from a lower price.
    b. all buyers of the product will suffer from a higher price.
    c. some buyers will not be able to purchase the product at all.
    d. some sellers will not be able to sell as much of their product as they desire to sell at that price.

24. Internalizing a positive production externality will _____ quantity supplied and _____ the gross price consumers pay.
    a. increase ... decrease
    b. decrease ... decrease
    c. decrease ... increase
    d. increase ... increase

25. Which of the following can prevent negotiations from solving an externality?
    a. Free-rider problems.
    b. High transaction costs.
    c. The condition of being a large, negative externality.
    d. All of the above.
    e. Both (a) and (b), but not (c).

26. Economic profit is equal to
    a. total revenue minus the explicit cost of producing goods and services.
    b. total revenue minus the implicit cost of producing goods and services.
    c. total revenue minus the accounting cost of producing goods and services.
    d. total revenue minus the opportunity cost of producing goods and services.

27. A firm is producing widgets. At a given level of production, the average cost is 200, marginal cost is 300, and marginal revenue is 400. A profit-maximizing firm would
    a. increase production because MR > AC.
    b. decrease production because MR > MC.
    c. increase production because MR > MC.
    d. decrease production because MR > AC.
    e. it is impossible to determine from the information given.

28. If a decrease in price from $30 to $20 causes the demand for a good to increase from 250 to 300 units, the good is
    a. income elastic.
    b. a normal good.
    c. price elastic.
    d. price inelastic.
    e. a luxury good.

29. Graphically, producer surplus is the area
    a. below the supply curve.
    b. above the supply curve but below price.
    c. below the supply curve but above price.
    d. above the supply curve but below the demand curve.
    e. below the supply curve but above the demand curve.

30. All else remaining the same, a binding price floor will cause less of a shortage if:
    a. both demand and supply are more elastic.
    b. both demand and supply are more inelastic.
    c. demand is more elastic and supply is more inelastic.
    d. demand is more inelastic and supply is more elastic.
    e. none of the above: there will be no shortage.

31. With all else remaining the same and a per-unit tax imposed on the consumer, more of the tax burden will fall on producers if:
    a. both demand and supply are more elastic.
    b. both demand and supply are more inelastic.
    c. demand is more elastic and supply is more inelastic.
    d. demand is more inelastic and supply is more elastic.
    e. none of the above: there will be no tax burden on producers.

32. With no externalities, efficiency is maximized when:
    a. price and quantity is determined by the intersection of the market demand and supply curves.
    b. consumer surplus less producer cost is maximized.
    c. consumer surplus plus producer surplus is maximized.
    d. all of the above.
    e. (a) and (c), but not (b).

Extended Multiple Choice Questions

Enter your answers only on your Scantron form, not on this test paper.

A. Production Possibilities

Use the following table, which describes a production possibilities frontier, to answer the next two questions:

Production Possibilities on Maggie's Farm (in Bushels)	
Potatoes	Carrots
0	20
2	18
4	14
6	8
8	0

33. All of the following are true *except*:
    a. Maggie experiences *declining* opportunity costs in the production of carrots as the quantity of carrots produced increases.
    b. Maggie experiences *increasing* opportunity costs in the production of potatoes as the quantity of potatoes produced increases.
    c. Maggie could produce 2 bushels of potatoes and 8 bushels of carrots but it would not be an efficient use of resources.
    d. Maggie would be using her resources efficiently if she produced no potatoes and 20 bushels of carrots.

34. According to the table, which of the following statements is certainly true:
    a. Maggie could not produce 4 bushels of potatoes and 20 bushels of carrots unless technology improved or she expanded her farm.
    b. Maggie should produce only carrots.
    c. Maggie should produce only potatoes.
    d. Maggie should produce some carrots and some potatoes.

B. Private and Social Costs

Please refer to the following table of *marginal* private and social costs for the next three questions. Fixed costs are $50.

tons of salt (q)	marginal *private* costs	marginal *social* costs
0		
1	$10	$20
2	$20	$30
3	$30	$40
4	$40	$50
5	$50	$60

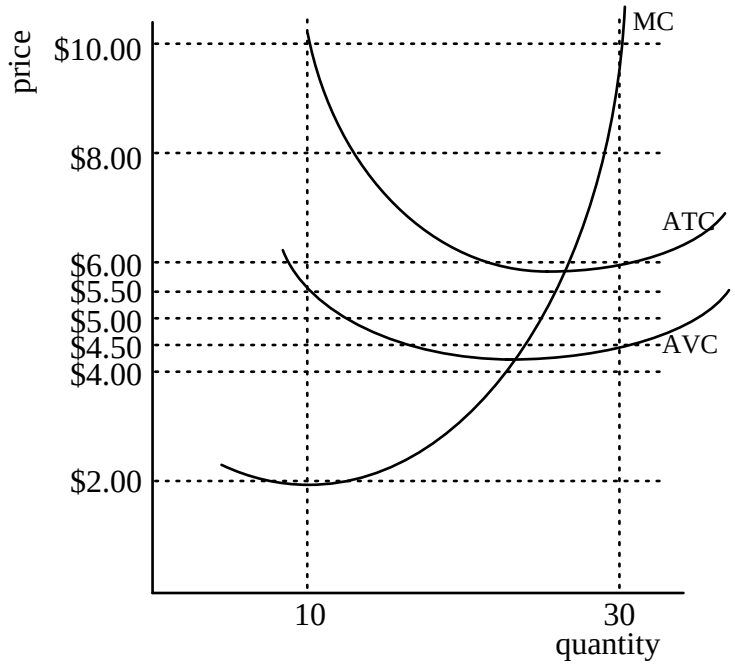
35. The marginal external costs imposed on society from processing 4 tons of salt are:
    a. $2.50 per ton of salt.
    b. $10.00 per ton of salt.
    c. $12.50 per ton of salt.
    d. $50 per ton of salt.
    e. cannot be determined from the information given.

36. This is an example of:
    a. a positive externality.
    b. a negative externality.
    c. a consumption externality.
    d. none of the above.

37. To induce this salt processing firm to produce the efficient level of output, the government should impose a tax of:
    a. $40 per ton.
    b. $30 per ton.
    c. $20 per ton.
    d. $10 per ton.
    e. The answer depends on initial output.

C. Cost Curves and Competitive Behavior

Please refer to the following cost curves for the next three questions. The firm is a perfect competitor.



38. If the market price is $10, then the firm's profits are:
    a. $40.
    b. $165.
    c. $45.
    d. $120.

39. Total fixed costs are equal to:
    a. $3.50.
    b. $35.
    c. $4.50.
    d. $45.
    e. cannot be determined from the information given.

40. At an output level of 30 units, variable costs equal:
    a. $300.
    b. $180.
    c. $135.
    d. $45.

D. Opportunity Cost, Comparative Advantage, and Absolute Advantage

Use the following table to answer to the next four questions.

	Number of units produced using 60 labor hours	
	Jam (jars)	Milk (gallons)
Gonzalo	30	10
Leanne	20	15

41. What is the opportunity cost of one jar of jam for Leanne?
    a. 3/4 gallon of milk.
    b. 4/3 gallon of milk.
    c. 30 labor hours.
    d. 3 labor hours.
    e. None of the above.

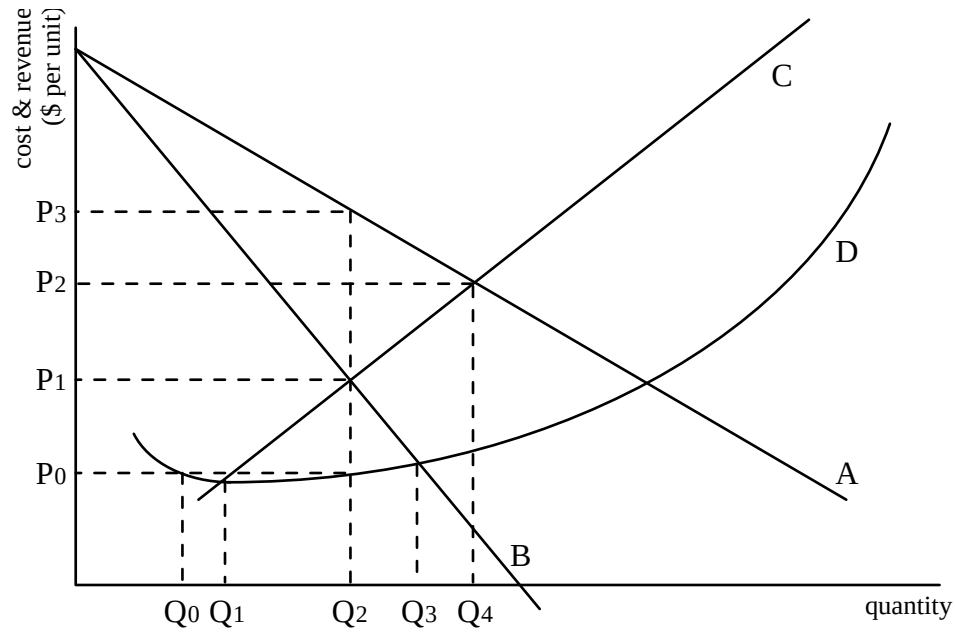
42. Gonzalo has a comparative advantage in producing _____, and Leanne has a comparative advantage in producing _____.
    a. jam ... jam.
    b. jam ... milk.
    c. milk ... jam.
    d. milk ... milk.
    e. none of the above.

43. What is the opportunity cost of producing one gallon of milk for Gonzalo?
    a. 1/3 jar of jam.
    b. 3 jars of jam.
    c. 30 jars of jam.
    d. 0.3 jar of jam.
    e. None of the above.

44. Gonzalo has an absolute advantage in producing _____ , and Leanne has an absolute advantage in producing _____.
    a. jam ... jam.
    b. jam ... milk.
    c. milk ... jam.
    d. milk ... milk.
    e. none of the above.

E. Cost Curves and Monopolistic Behavior

Consider the following cost and revenue structure for a monopoly with no fixed costs.



45. Which curve represents the demand curve for the monopoly firm?
    a. A
    b. B
    c. C
    d. D

46. At the profit maximizing level of output, average revenue would be equal to
    a. P_0
    b. P_1
    c. P_2
    d. P_3

47. A profit-maximizing monopolist would have total *revenue* equal to
    a. P_3 * Q2
    b. P_2 * Q4
    c. (P_3-P_1) * Q2
    d. (P_3-P_0) * Q2

48. A profit-maximizing monopolist would have *profit per unit* equal to
    a. P_3-P_1
    b. P_3-P_0
    c. P_2-P_1
    d. P_2-P_0

F. Private Solutions to Externalities

Dick owns a dog whose barking annoys Dick's neighbor Jane. Unfortunately for Jane, in this community dog owners have the right to own a dog even if the dog's barking disturbs the neighbors.

49. Suppose that the benefit Dick receives from owning the dog is worth $500 to him, and that Jane bears a cost of $700 from the barking. A possible private solution to this problem which makes both people better off is that
    a. Jane pays Dick $450 to give the dog away to a friend.
    b. Dick pays Jane $650 for her inconvenience.
    c. Jane pays Dick $650 to give the dog away to a friend.
    d. Dick pays Jane $500 for her inconvenience.
    e. There is no private solution that would improve this situation for both Dick and Jane.

50. Suppose that the benefit Dick receives from owning the dog is worth $800 to him, and that Jane bears a cost of $400 from the barking. A possible private solution to this problem which makes both people better off is that
    a. Jane pays Dick $650 to give the dog away to a friend.
    b. Dick pays Jane $650 for her inconvenience.
    c. Jane pays Dick $800 to give the dog away to a friend.
    d. Dick pays Jane $400 for her inconvenience.
    e. There is no private solution that would improve this situation for both Dick and Jane.