Economics 101
Fall 2010
11/09/2010
Second Midterm

Name _____
TA Name _____
Discussion Section #_____
Student ID # _____

Version 1

**DO NOT BEGIN WORKING UNTIL THE INSTRUCTOR TELLS YOU TO DO SO
READ THESE INSTRUCTIONS FIRST.**

You have 75 minutes to complete the exam. The exam consists of 10 binary choice and 26 multiple choice questions. Each binary choice question is worth 2 points and each multiple choice question is worth 3 points for a total of 98 points. The final two points of the exam depend upon your accurately and completely providing your name, ID number, discussion section number, version number, and TA name on the scantron sheet and the exam booklet. **Answer all questions on the scantron sheet with a #2 pencil**

NO CELL PHONES, CALCULATORS, OR FORMULA SHEETS ARE ALLOWED.
PICK THE BEST ANSWER FOR EACH QUESTION.

How to fill in the scantron sheet:

1. Print your last name, first name, and middle initial in the spaces marked "Last Name," "First Name," and "MI." Fill in the corresponding bubbles below.
2. Print your student ID number in the space marked "Identification Number." Fill in the bubbles.
3. Write the number of the discussion section you've been attending under "Special Codes" spaces ABC, and fill in the bubbles. You can find the discussion numbers below on this page.
4. Write the version number of your exam booklet under "Special Codes" space D, and fill in the bubble. The version number is on the top of this page.

If there is an error on the exam or you do not understand something, make a note on your exam booklet and the issue will be addressed AFTER the examination is complete. No questions regarding the exam can be addressed while the exam is being administered.

When you are finished, please get up quietly and bring your scantron sheet and this exam booklet to the place indicated by the instructors.

Discussion sections are as follows:

Chris Reynolds	Jing Tao	Yi Li	Zhewen Xu	Zichen Qiu
DIS 315 3:30 Th	DIS 316 12:05 W	DIS 309 3:30 W	DIS 304 3:30 Th	DIS 301 3:30 W
DIS 305 1:20 F	DIS 313 3:35 Th	DIS 307 4:45 W	DIS 314 4:35 Th	DIS 306 4:45 W
	DIS 317 8:50 F	DIS 318 8:50 F	DIS 319 1:20 F	DIS 302 2:25 F
	DIS 311 9:55 F	DIS 312 9:55 F	DIS 310 2:25 F	

Work Sheet

I, _____, agree to neither give nor receive any help on this exam from other students. Furthermore, I understand that use of a calculator is an academic misconduct violation on this exam.

Signed _____

I. Binary Choice Questions (10 questions worth 2 points each)

1. An open economy, where producers and consumers are free to trade at world prices, is always better for domestic consumers than a closed economy.
   a. true
   b. false

2. When marginal cost is rising but less than average variable cost as output increases, then
   a. average total cost must be falling.
   b. average variable cost must be rising.

3. Ordinal utility captures only ranking and not strength, or numerically significant measurements, of preferences.
   a. true
   b. false

4. If my price elasticity of demand for good X is –0.25, then a decrease in the price of good X will ____ my consumer expenditure on this good.
   a. decrease
   b. increase

5. A negative income elasticity of demand is always associated with inferior goods.
   a. true
   b. false

6. The marginal product of labor:
   a. illustrates the output produced by a labor force for a given level of capital.
   b. expresses the addition to total output from hiring an additional unit of labor.

7. If a good is "normal" then a decrease in income will result in:
   a. a lower demand for the good.
   b. a higher demand for the good.

8. If no close substitute for butter (such as margarine) existed, the demand for butter would be more inelastic.
   a. true
   b. false

9. The unit elastic point always occurs at the midpoint of the demand curve if the demand curve is linear and intersects both the y-axis and x-axis.
   a. true
   b. false

10. Suppose a firm is producing 100 units of output, incurring a total cost of $10,000 and total variable cost of $6,000. What is the average fixed cost?
    a. $40
    b. $60

II. Multiple Choice Questions (26 questions worth 3 points each)

11. Consider the market for bicycles. The demand is given by $P = 90 - 3Q_d$. Suppose that the price changes from $30 to $15. Using the midpoint method, what is the price elasticity of demand?
    a. 2/5
    b. 3/5
    c. 1/3
    d. 1/2

12. Lucy and her grandmother are having a debate about public policy. Lucy argues that public policies designed to help the poor should always provide funds where the use of these funds is restricted to specific purchases. Her grandmother argues that public policy to help the poor should provide funds to the poor but allow the poor to decide how best to allocate these funds. Which of the following statements is true given this scenario?
    a. Lucy's choice of policy will alter the prices that the poor face: she hopes by altering these prices to encourage the poor to consume more of one type of good and less of another type of good.
    b. Lucy believes that the poor need guidance in how they allocate their budgets.
    c. It is unlikely that Lucy's grandmother would send Lucy a sweater for her birthday.
    d. All of the above statements are true
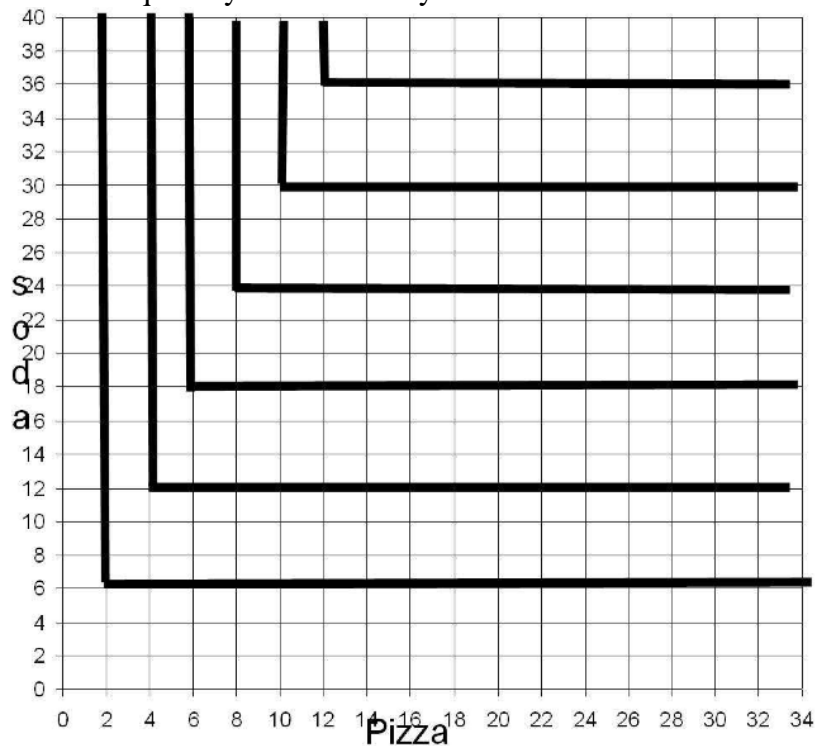
Use the following information for the next **three** questions.

	Tommy in Vice City	Carl in San Andreas	Niko in Liberty City
Nominal wage in 2009	50	75	96
Nominal wage in 2010	55	?	96
CPI 2009 (base year)	100	100	?
CPI 2010	?	80	120
Real wage in 2009	50	75	96
Real wage in 2010	50	80	80

13. Given the information above regarding Tommy, what must be the CPI in 2010 for Vice City?
    a. 5
    b. 11
    c. 105
    d. 110

14. Given the information above regarding Carl, what must his nominal wage be in 2010?
    a. 64
    b. 75
    c. 80
    d. 100

15. Given the information above regarding Niko, what must inflation have been in Liberty City between 2009 and 2010?
    a. 8%
    b. 20%
    c. 80%
    d. 83%

16. If labor is the only variable resource and the marginal product of labor falls as more workers are hired:
    a. marginal cost will eventually increase as the level of output increases.
    b. average total cost may still be declining as the level of output increases.
    c. then the firm is experiencing diminishing returns to labor.
    d. all of the above are true statements

Use the following information for the next **five** questions.

Robinson consumes soda and pizza and the graph illustrates his indifference curves. The quantity of pizza is on x-axis and the quantity of soda is on y-axis.

17. From Robinson's indifference curves, we can determine that Robinson is indifferent between having (10 pizzas, 12 sodas) and having:
    a. (4 pizzas, 30 sodas)
    b. (12 pizzas,10 sodas)
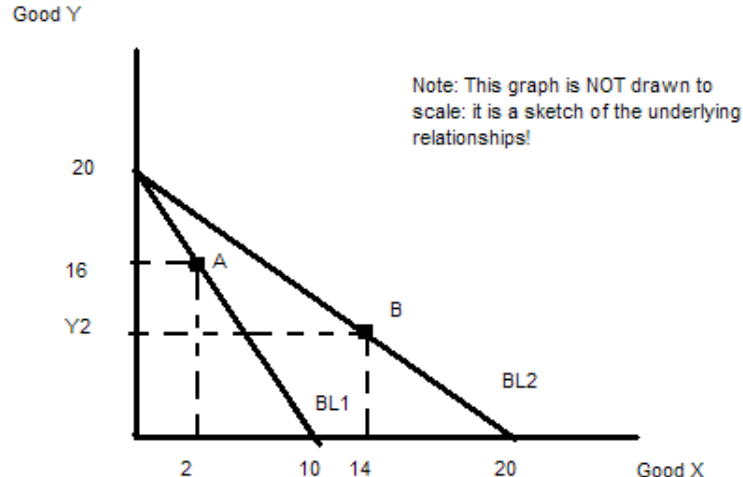   c. (12 pizzas, 18 sodas)
    d. (20 pizzas, 6 sodas)

18. Suppose Robinson has an income of $24, and that the price of pizza = $3 and the price of soda = $1. Given this information, how much soda must Robinson give up in order to get one more pizza?
    a. 2 sodas
    b. 1/3 sodas
    c. 3 sodas
    d. 1 sodas

19. Given the income and prices from the previous question, and the above indifference curve map, Robinson's optimal consumption bundle is:
    a. (12 pizzas, 36 sodas)
    b. (4 pizzas, 12 sodas)
    c. (8 pizzas, 12 sodas)
    d. (8 pizzas, 0 sodas)

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20. Holding everything else constant, suppose the price of pizza decreases to $1. The **change** in the quantity demanded of pizza due to the decrease in the price of pizza is:
    a. 4 pizzas
    b. 5 pizzas
    c. 1 pizza
    d. 2 pizzas

21. Fill in the blanks in the following statement based upon the decrease in the price of pizza described in the previous question. The substitution effect due to the decrease in the price of pizza is equal to an increase of _____ units while the income effect due to this change in price is equal to an increase of _____ units.
    a. 2,2
    b. 0,4
    c. 1,1
    d. 0,2

Answer the next **three** questions based on the following information and diagram.

The diagram below represents an individual who initially faces budget line BL1. Points A and B represent utility maximizing consumption bundles of good X and good Y for this individual given his budget lines BL1 and BL2.

22. Given the above diagram and the information it conveys, which of the following statements is true?
    a. The individual's real income increases as a result of moving from BL1 to BL2.
    b. The individual's marginal rate of substitution of good X for good Y at point A and point B are equal since both points are utility maximizing points.
    c. The change from BL1 to BL2 could represent a tax on good X since a tax on good X will change the price of good X.
    d. All of the above statements are true

23. Given BL2, we know that point B represents the consumption bundle, (X, Y2), that maximizes this individual's utility. Which of the following combinations of good X and good Y is the combination represented by point B in the graph?
    a. (X, Y2) = (14, 14)
    b. (X, Y2) = (14, 10)
    c. (X, Y2) = (14, 6)
    d. (X, Y2) = (14, 2)

24. Given the information in the graph. Which of the following equations best represents this individual's demand curve for good X? Assume that P refers to the price of good X and Q refers to the quantity of good X.
    a. $P = 20 - 2Q$
    b. $P = (13/6) - (1/12)Q$
    c. $P = 20 - Q$
    d. $P = (16/6) - (8/7)Q$

Use the following information for the next **<u>five</u>** questions:

Suppose the world price of widgets is $30 and that Econland is small country relative to the world market, so that its trade policy has no effect on the world price. Domestic demand for widgets in Econland is given by the equation $P = 100 - 2Q_d$. Domestic supply is given by the equation $P = 3Q_s$. Answer the following questions:

25. What's the domestic equilibrium price and quantity of widgets if the economy is a closed economy?
    a. P=$20, Q=60
    b. P=$60, Q=20
    c. P=$40, Q=30
    d. P=$30, Q=40

26. Suppose there is a total ban on widget imports. Given this ban, the total surplus in the market for widgets in Econland equals
    a. $400
    b. $600
    c. $1,125
    d. $1,000

27. Suppose that Econland opens its widget market to trade. Compare the consumer surplus when the widget market in Econland is open to trade with the consumer surplus when the widget market in Econland is closed to trade: what is the **<u>change</u>** in consumer surplus when the market opens to trade?
    a. $1,225
    b. $400
    c. $600
    d. $825

28. Suppose that the government of Econland decides to open its widget market to trade and to implement a tariff in this market so that widgets will sell for $42 in the Econland market. What is the government's tariff revenue from the imposition of this tariff?
    a. $180
    b. $841
    c. $60
    d. $90

29. Suppose that the government of Econland decides to open its widget market to trade, but instead of implementing a tariff the government decides to implement a quota. If the quota is set at 15 widgets, what will be the deadweight loss due to this quota?
    a. $50
    b. $60
    c. $70
    d. $80

30. Suppose that Kelly Corp. manufactures gadgets and uses both a variable input (labor) as well as a fixed input (capital) to produce these gadgets. If Kelly Corp. rationally decides to shut down and produce nothing in the short run, which one of the following statements best describes the firm's situation?
    a. In the short run total variable costs for the firm are zero while total fixed costs for the firm are positive.
    b. Total fixed costs, total variable costs, and total costs are all equal to zero in the short run since nothing is being produced by the firm.
    c. In the short run total fixed and total variable costs may be positive and that implies that total costs may be positive for the firm.
    d. In the short run, the firm's marginal costs may be either positive or equal to zero.

31. Which of the following statements is true?
    a. The short run is always a year or shorter in length of time, while the long run is always longer than a year.
    b. In the short run at least one input is fixed; in the long run, all inputs that a firm uses can be varied,
    c. In the short run a firm's costs only include its fixed costs while in the long run a firm's costs include its fixed and variable costs.
    d. In the short run a firm's average total cost of production decreases if it experiences increasing returns to scale; in the long run average total cost is increasing.

32. In the production of corn, all of the following are variable inputs that are used by the farmer **except**:
    a. the amount of fertilizer used after the seeds have been planted.
    b. the field that has been cleared of trees for the crop to be planted.
    c. the tractor used by the farmer in planting corn, wheat, and barley.
    d. the number of hours that the farmer spends cultivating his field of corn.

33. Using the information in the table below, which of the following statements is true?

Year	CPI	Nominal Wage
(base year) 1980	100	$6/hour
1990	200	$10/hour
2000	300	$12/hour

   a. The real wage is increasing from 1980 to 2000.
   b. The real wage is decreasing from 1980 to 2000.
   c. The real wage in 1990 is $8/hour.
   d. The real wage in 2000 is greater than the nominal wage in 2000.

34. For a firm, the law of diminishing marginal returns to labor is encountered as increasing amounts of labor are hired for a given amount of capital because:
   a. as the level of total production increases, the additional labor hired by the firm is less and less skilled.
   b. the firm hires more experienced workers before the firm hires less skilled workers.
   c. each extra worker hired by the firm decreases the amount of capital available per worker and eventually this causes additional workers to be less productive as the workplace becomes more congested and managerial control becomes more difficult.
   d. as more and more output is produced by the firm, the firm is forced to cut its product's price in order to sell its output.

35. One cost curve for a firm that can never be "U"-shaped is the:
   a. average variable cost curve.
   b. marginal cost curve.
   c. average fixed cost curve.
   d. long run average cost curve.

36. The market for rice has a very inelastic demand (but is **not** perfectly inelastic) while the price elasticity of supply is 1. Suppose the government imposes an excise tax on the producers in this market. Which of the following statements is true?
   a. The economic burden of this excise tax is shared equally by producers and consumers of this product.
   b. The consumers of this product bear most of the economic burden of this excise tax.
   c. No matter how inelastic the demand curve is, the seller must bear most of the economic burden of this excise tax since the tax is imposed on the seller.
   d. The excise tax on this good results in relatively large tax revenues for the government while simultaneously discouraging consumption of the good.

Number	Answer
1	B
2	A
3	A
4	A
5	A
6	B
7	A
8	A
9	A
10	A
11	C
12	D
13	D
14	A
15	B
16	D
17	A
18	C
19	B
20	D
21	D
22	A
23	C
24	B
25	B
26	D
27	D
28	A
29	B
30	A
31	B
32	B
33	B
34	C
35	C
36	B