

Econ 101 – Lec 3
Fall 2001
Midterm #1
Version 1
October 2, 2001

Student Name: _____
ID Number: _____
Section Number: _____
TA Name: _____

MIDTERM #1

VERSION 1

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

You have the class period to complete the exam, 75 minutes. The exam consists of 28 multiple choice questions. Each multiple choice question is worth 1 point for a total of 28 points. The information asked on the top right corner of this page and on the coding sheet is worth 2 points. In order to ensure these points make sure you provide all information correctly. Please answer all questions on the coding sheet with a #2 **pencil**. **No calculators or formula sheets are allowed.** There are 10 pages in this exam booklet.

How to fill in the coding 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 corresponding bubbles below.
 3. Write your discussion section number 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 written on the top left corner and at the top of this page.
- If you have any questions during the exam, stay seated and raise your hand.
 - When you are finished, please get up quietly and bring your code sheet and this exam booklet to the place indicated by the instructors.

Sections:

| | |
|--|--|
| Disc 355 11:00-11:50am R Oya Ardic | Disc 365 08:50-09:40am F Vien Huynh |
| Disc 356 11:00-11:50am R Miaojie Yu | Disc 366 08:50-09:40am F Young-Joon Park |
| Disc 357 11:00-11:50am R Hyung Rok Yim | Disc 367 09:55-10:45am F Young-Joon Park |
| Disc 358 12:05-12:55pm R Hyung Rok Yim | Disc 368 09:55-10:45am F Miaojie Yu |
| Disc 359 12:05-12:55pm F Hyung Rok Yim | Disc 369 11:00-11:50am F Miaojie Yu |
| Disc 360 01:20-02:10pm F Hyung Rok Yim | Disc 370 11:00-11:50am F Hyung Rok Yim |
| Disc 361 02:25-03:15pm R Vien Huynh | Disc 371 12:05-12:55pm F Young-Joon Park |
| Disc 362 09:55-10:45am F Vien Huynh | Disc 372 01:20-02:10pm F Young-Joon Park |
| Disc 363 11:00-11:50am F Vien Huynh | Disc 373 08:30-09:20am R Oya Ardic |
| Disc 364 03:30-04:20pm R Vien Huynh | Disc 374 04:00-04:50pm R Young-Joon Park |

Question 1: Which of the following describes the effect on equilibrium price and quantity of orange juice resulting from an unexpected announcement that orange juice prevents cancer?

- A. Price goes down, quantity goes down.
- B. Price goes up, quantity goes down.
- C. Price goes up, quantity goes up.
- D. Price goes down, quantity goes up.
- E. Price is indeterminate, quantity goes up.

Question 2: A macroeconomist might be concerned with:

- A. the effect of unions on the wages of workers at Ford.
- B. changes in total employment and total output in the US economy.
- C. how consumers make spending decisions.
- D. the effect of the price of wheat on the supply of bread.
- E. the effect of oil prices on automobile sales.

Question 3: Consider the following production possibilities data. The table shows the maximum combinations of bread and guns that can be produced when all resources are fully employed.

| | | | | | | |
|-------|------|-----|-----|-----|-----|-----|
| Guns | 0 | 100 | 200 | 300 | 400 | 500 |
| Bread | 1000 | 900 | 750 | 550 | 300 | 0 |

Which of the following is TRUE?

- A. The opportunity cost of producing 200 guns instead of 100 guns is 750 units of bread.
- B. The opportunity cost of producing 500 guns instead of 300 guns is zero since we don't have to give up any bread.
- C. The opportunity cost of producing 550 units of bread instead of 300 units of bread is zero.
- D. The opportunity cost of producing 300 units of bread instead of 750 units of bread is 500 guns.
- E. The opportunity cost of producing 400 guns instead of 100 guns is 600 units of bread.

Question 4: Assume a bowed-out production possibility frontier. Suppose that the government decides to increase the production of armaments by \$20 billion, and that as a result the output of consumer goods falls by \$20 billion. If a further increase of \$20 billion in armament output is sought, we can expect that the output of consumer goods will fall further by:

- A. less than \$20 billion.
- B. \$20 billion.
- C. more than \$20 billion.
- D. \$10 billion.
- E. zero.

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Question 5: Suppose an economy is having an economic slowdown. Furthermore, suppose the demand for good A has been increasing over the past year, holding everything else constant. Having examined the facts, you conclude that good A is an inferior good. Which of the following is TRUE?

- A. Good B, a substitute for good A, has been experiencing price declines over the last 12 months.
- B. An economic slowdown has reduced the number of traditional buyers of good A.
- C. The price of good A has been increasing over the past year.
- D. Household wealth has increased among the traditional buyers of good A.
- E. The supply of good A has increased.

Question 6: Assume that there is technological progress which only affects the production of good X. In this case,

- A. there will be an outward shift in the whole production possibility frontier.
- B. the production possibility frontier will not change.
- C. the opportunity cost of producing good X does not change with the technological change.
- D. the production possibility frontier will shift outward, pivoting from the Y axis.
- E. the opportunity cost of producing each additional unit of good X will be larger than it was before the technological change.

Question 7: In an hour, Alice can produce 2 cakes or 4 pies, whereas Roger can produce 1 cake or 3 pies. Which of the following is TRUE?

- A. Since Roger has the comparative advantage in producing both goods, Alice should produce neither good.
- B. Since Alice has the absolute advantage in producing both goods, Roger should produce neither good.
- C. Alice should specialize in cakes.
- D. Alice should specialize in pies.
- E. Roger should produce both cakes and pies.

Question 8: Goods A and B are complementary goods (in consumption). The cost of a resource used in the production of A decreases. As a result,

- A. the equilibrium price of B will fall and the equilibrium price of A will rise.
- B. the equilibrium price of B will rise and the equilibrium price of A will fall.
- C. the equilibrium prices of both A and B will rise.
- D. the equilibrium prices of both A and B will fall.
- E. the equilibrium prices of both A and B will not change.

Question 9: Which of the following is a positive statement?

- A. Fighting inflation should be the most important priority for the US government.
- B. Given the current US annual income level, the level of national saving is insufficient.
- C. The current annual rate of inflation is 4.6%.
- D. Economic growth is desirable since it increases employment opportunities for minority groups.
- E. The highest economic priority of the government should be fighting unemployment.

Question 10: Turnips are available in both the US and Canada. During the past year incomes have grown by 12% in each country. The demand for turnips has grown by 18% in the US and by 8% in Canada. We can conclude that turnips are:

- A. normal goods in the US and normal goods in Canada.
- B. normal goods in the US and inferior goods in Canada.
- C. inferior goods in the US and normal goods in Canada.
- D. inferior goods in the US and inferior goods in Canada.
- E. substitutes in the US and complements in Canada.

Question 11: An increase in the supply of American cars might be caused by:

- A. a decrease in the price of imported Japanese cars.
- B. a decrease in the wages of US workers in the automotive industry.
- C. a decrease in demand resulting in lower car prices.
- D. an increase in the cost of steel.
- E. an increase in the supply of German cars.

Question 12: The supply of oranges will shift to the right if:

- A. the price of oranges decreases.
- B. the price of oranges increases.
- C. oranges are rumored to have been treated with an insecticide that causes heart disease.
- D. the Florida government requires that all orange workers be given more substantial health benefits by employers.
- E. citrus growers see the price of grapefruits decreasing permanently.

Question 13: In light of last week's attacks airline companies in the United States have laid off a substantial number of workers. In addition, new security measures are anticipated for the industry and these measures will add substantially to the costs of providing air services. Which of the following statements best explains what appears to be happening in the United States?

- A. Demand for airline services has shifted to the left while the supply of airline services has shifted to the right due to anticipation of higher security costs.
- B. Demand for airline services has shifted to the left while the supply of airline services has shifted to the left as airlines adjust to the new security costs they anticipate.
- C. Demand for airline services has shifted to the right due to the changes in tastes and preferences with regard to air travel while supply has shifted to the left due to the industry anticipating higher operating costs.
- D. The equilibrium price in the industry is decreasing since fewer people are being employed by the industry, while the equilibrium quantity of airline services demanded is staying constant.
- E. The demand for airline services has not been affected, but the supply of airline services has shifted to the left as the airlines adjust to the higher security costs of providing their product.

Question 14: The demand for a week's worth of newspaper delivery in Madison is given by the equation $Q^D = 220 - 20P$. There are two daily papers, each with supply curves given by the equation $Q^S = 20P - 10$. What is the equilibrium price for a week's worth of delivered newspapers?

- A. \$5.75
- B. \$4.00
- C. \$7.50
- D. \$7.67
- E. \$5.25

Question 15: Which of the following is NOT a factor that can cause a change in demand?

- A. Income
- B. Changes in costs of production (input prices)
- C. Prices of related products
- D. Tastes or preferences of households
- E. Expectations

Question 16: Along a given demand curve for corn, which of the following is NOT held constant?

- A. The price of corn
- B. The income of corn farmers
- C. The income of corn consumers
- D. The price of wheat
- E. The quantity of wheat

Question 17: Which of the following best illustrates the law of demand?

- A. As the price of Pepsi rises, consumers buy more Coke.
- B. As the price of Whoppers decreases, consumers buy fewer Big Macs.
- C. As the price of Coke decreases, consumers increase their purchases of Coke.
- D. As income increases, the purchases of store-brand soft drinks decline.
- E. As income increases, the purchases of Coke decline.

Question 18: Suppose that in one week the U.S. can produce 5 pairs of shoes or 4 bookshelves while the U.K. can produce 10 pairs of shoes or 6 bookshelves. Which of the following is TRUE?

- A. The U.S. has an absolute advantage in producing shoes.
- B. The U.S. has a comparative advantage in producing shoes.
- C. The U.S. has an absolute advantage in producing bookshelves.
- D. The U.S. has a comparative advantage in producing bookshelves.
- E. The U.S. has no gains from trade.

Question 19: Which of the following statements is FALSE?

- A. Economics studies the production and consumption choices in a society.
- B. The economists are not concerned with the distribution of the goods and services produced in the economy.
- C. Enhancing development in poor countries is a difficult task since it involves many problems including the lack of resources, the lack of a strong legal system, political conflicts among others.
- D. Economics is the study of choice under conditions of scarcity.
- E. In centrally planned economies, the decisions of what to produce, how to produce and for whom to produce are made by a central authority.

Question 20: Which of the following is TRUE?

- A. The law of increasing opportunity cost states that as more and more of one good is produced, the opportunity cost of producing more of that good increases.
- B. All points on the production possibilities frontier are productively efficient.
- C. If the PPF is linear, the law of increasing opportunity cost does not hold.
- D. (A) and (B) are TRUE.
- E. (A), (B), and (C) are TRUE.

Question 21: Which of the following is TRUE?

- A. Economic models are based on a set of assumptions.
- B. Economic models are designed to analyze all the details of the real world.
- C. Economic models cannot explain real world phenomena.
- D. It is not possible to test the predictions of economic models using data from the real world.
- E. All of the above are TRUE.

Question 22: In a diagram of a production possibility frontier, an economy experiencing unemployment will be at a point:

- A. above the frontier.
- B. below the frontier.
- C. where the frontier intersects the horizontal axis.
- D. where the frontier intersects the vertical axis.
- E. Unemployment does not affect where an economy is relative to the frontier.

Question 23: Suppose that both the demand for the good as well as the supply of the good increases. We know with certainty that:

- A. the quantity demanded of the good will increase.
- B. the quantity demanded of the good will decrease.
- C. the price of the good increases.
- D. the good must be a normal good.
- E. (A), (C), and (D).

Question 24: The demand for good X is given by

$$Q = 5 - 0.5P$$

where Q is the quantity demanded and P is the price of good X. Suppose that income increases and good X is an inferior good. Which of the following might be the new demand equation for good X?

- A. $Q = 6 - 0.5P$
- B. $Q = 8 - P$
- C. $Q = 12 - P$
- D. $Q = 4 - 0.5P$
- E. $Q = 10 - P$

Question 25: The following equation shows the market demand for airline tickets from Madison to Los Angeles:

$$P = 1000 - 2Q^D$$

If the market supply curve is given by $P = 3Q^S$, the equilibrium price is _____, and the equilibrium quantity is _____. Suppose there has been an adverse change in consumer tastes and preferences that shifted the demand curve to:

$$P = 750 - 2Q^D.$$

If the price of airline tickets remains the same, there will be _____.

- A. \$200; 600 tickets; a shortage of 225 tickets.
- B. \$300; 900 tickets; a shortage of 275 tickets.
- C. \$500; 250 tickets; a surplus of 125 tickets.
- D. \$600; 200 tickets; a surplus of 125 tickets.
- E. \$900; 300 tickets; surplus of 50 tickets.

Question 26: The price of good X increases and this results in a higher price and quantity for good Y. This must mean that:

- A. good Y is an inferior good.
- B. good Y is a normal good.
- C. good Y is a substitute for good X.
- D. good Y is a complement of good Y.
- E. good Y and good X are not related goods.

Question 27: Suppose you are given the following information about an individual's PPF. Assume that the PPF is linear.

| Good X | Good Y |
|--------|--------|
| 10 | 50 |
| 20 | 30 |
| 30 | 10 |

Which of the following combinations of good X and good Y is efficient for this individual?

- A. 12,45
- B. 8,56
- C. 27,16
- D. 32,8
- E. 0,69

Question 28: Suppose the market demand curve for good X is given by the following equations:

$$P = -4Q + 100 \text{ for } Q \leq 10$$

$$P = -2Q + 80 \text{ for } Q \geq 10$$

Assume P is the price of the good and Q is the quantity demanded. Furthermore, suppose this market is made up of two individuals. Fill in the following blanks:

The “kink” in the demand curve occurs at _____, the y-intercept for the market demand curve is _____, and if the individual demand curve for person A is

$$P = -4Q + 100$$

then the demand curve for person B is _____.

- A. (0,80); 100; $P = -2Q + 60$
- B. (10,30); 100; $P = -4Q + 80$
- C. (10,30); 100; $P = -2Q + 20$
- D. (10,60); 100; $P = -2Q + 80$
- E. (10,60); 100; $P = -4Q + 60$