

Gulf University for Science and Technology
Department of Economics and Finance

Ec 101 - Principles of Microeconomics

Spring 2010/2011, March 16 2011
Common Midterm Exam, Version A

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The blanks below should be filled by the student

Name :.....

GUST Id:.....

Section:(please check the list below if you do not know your section number)

Instructor:

SECTIONS

Section 1	M,W 9:30-10:50	O. ALShehabi
Section 2	S,T,TH 1:00-1:50	A. Aydilek
Section 3	S,T,TH 4:00-4:50	A. Aydilek
Section 51	M, W 3:30-4:50	A. Aydilek
Section 52	S,T,TH 1:00-1:50	A. Aydilek
Section 53	M,W 8:00-9:20	O. ALShehabi

Instructions

The exam has two parts. Part 1 contains multiple choice questions. The answers of Part 1 should be written to the scantron with pencil

Please write your name, GUST ID and version (A or B) to both scantron and the exam paper

Circle the last 4 digits of your GUST ID in the scantron with pencil

If you do not have pencil, please request it from the proctor

Part 2 contains short answer questions. The answers to Part 2 should be written to the corresponding blanks in the exam paper, not to scantron.

You are not allowed to share calculators

You are not allowed to use your mobiles as a calculator or any other reason

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) In broad terms the difference between microeconomics and macroeconomics is that
- A) microeconomics studies decisions of individual people and firms and macroeconomics studies the entire national economy.
 - B) they use different sets of tools and ideas.
 - C) microeconomics studies the effects of government taxes on the national unemployment rate.
 - D) macroeconomics studies the effects of government regulation and taxes on the price of individual goods and services whereas microeconomics does not.

Answer= A

- 2) Economic models
- A) are essentially different from those used in other sciences.
 - B) always use graphs.
 - C) include most of the facts.
 - D) simplify reality and they are tested.

ANSWER=D

C is wrong. It includes only the most important and relevant variables.

- 3) On Saturday morning, you rank your choices for activities in the following order: go to the library, work out at the gym, have breakfast with friends, and sleep late. Suppose you decide to go to the library. Your opportunity cost is
- A) not clear because not enough information is given.
 - B) working out at the gym.
 - C) working out at the gym, having breakfast with friends, and sleeping late.
 - D) zero because you do not have to pay money to use the library.

ANSWER= B since the highest alternative of going to library is working out at the gym.

- 4) Which of the following is an example of a positive statement?
- A) Households are the primary source of saving.
 - B) Business firms ought to contribute more to charities.
 - C) Government should not redistribute income.
 - D) The foreign sector should be more tightly controlled.

ANSWER= A. It is a fact.

B,C,D are normative since they include evaluation and suggestion.

- 5) Holding all variables except one constant and assessing the impact of the one variable which has changed is an example of using
- A) the ceteris paribus assumption.
 - B) an untestable proposition.
 - C) normative economic analysis.
 - D) a flawed economic model.

ANSWER=A

- 6) An economic expansion follows a stock market boom. A cautious economist would not claim that the stock market caused the expansion because the economist wants to avoid 63) _____
- A) the fallacy of composition, which is an error in reasoning from timing to cause and effect.
 - B) the post hoc fallacy, which states that what is true of the parts is true of the whole.
 - C) the post hoc fallacy, which is an error in reasoning from timing to cause and effect.
 - D) the fallacy of composition, which states that what is true of the parts is true of the whole.

ANSWER=C. Boom happened before the expansion but it does not mean that it caused the expansion.

- 7) The demand for hot dogs is given by $Q_D = 8000 - 7000P$, where Q_D is the quantity demanded and P is the price in dollars. The supply for hot dogs is given by $Q_S = 4000 + 1000P$, where Q_S is the quantity supplied and P is the price in dollars. Given these supply and demand relationships,
- A) At a price of \$1, there is a surplus of 4000 hot dogs.
 - B) At a price of \$1, there is a shortage of 4000 hot dogs.
 - C) At the equilibrium, the price = \$0.50 and the quantity = 4500 hot dogs.
 - D) Both answers A and C are correct.

At equilibrium, quantity demanded=quantity supplied

$$8000 - 7000P = 4000 + 1000P$$

$$8000 - 4000 = 7000P + 1000P$$

$$4000 = 8000P$$

$$4000/8000 = P$$

$$P = 0.5$$

We find the equilibrium price=0.5

$$\text{Equilibrium quantity} = 8000 - 7000 * 0.5 = 8000 - 3500 = 4500$$

So C is correct. But A is also correct.

ANSWER=D

- 8) Some sales managers are talking shop. Which of the following quotations refers to a movement along the demand curve?
- A) "Since our competitors raised their prices our sales have doubled."
 - B) "We decided to cut our prices, and the increase in our sales has been remarkable."
 - C) "It has been an unusually mild winter; our sales of wool scarves are down from last year."
 - D) none of the above

ANSWER=B. Prices decreased and sales increased. Prices decreased and quantity demanded increased. Only quantity demand change but we are on the same demand curve. So it is a movement along the demand curve.

9) The price of a tomato increases and people buy more lettuce. You infer that lettuce and tomatoes are

- A) complements
- B) normal goods
- C) inferior goods
- D) substitutes

When tomato becomes more expensive, quantity demand for tomato will decrease by law of demand.

It is given that they buy more lettuce.

It seems that people substitute tomato with lettuce.

Answer=D

10) Kelly graduates and her income increases by \$25,000 a year. Other things remaining the same, she increases the quantity of clothes she buys. For Kelly, clothes are

- A) a normal good
- B) a complement good
- C) an inferior good
- D) a substitute good

Kelley buys more clothes with higher income thus clothes are normal good.

ANSWER=A

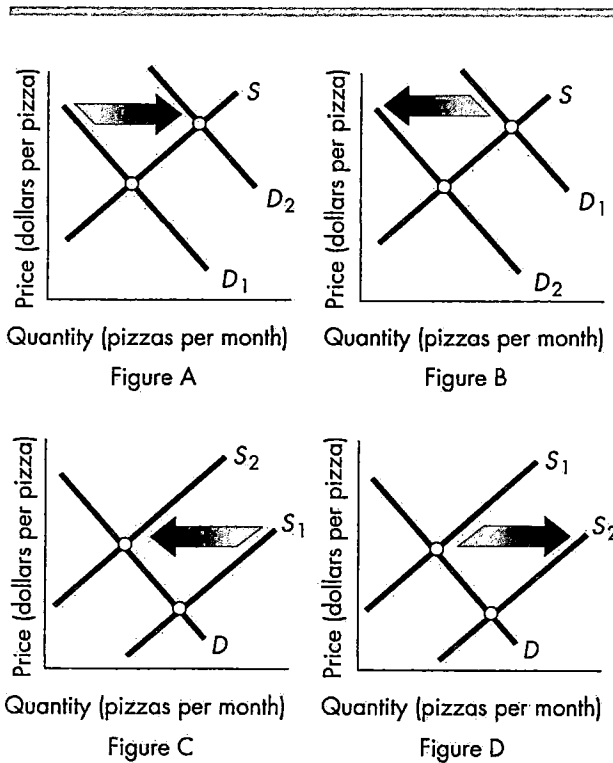


Figure 1

11) Figure 1 shows the market for pizza. Which figure shows the effect of an increase in the price of a complement such as soda?

- A) Figure A B) Figure B C) Figure C D) Figure D

Pizza and soda go together since they are complements.

If soda becomes more expensive, quantity demand for soda will be less by law of demand. Then demand for pizza will be less (shift to left) since soda and pizza go together.

ANSWER=Figure B

12) Figure 1 shows the market for pizza. Which figure shows the effect of an increase in the price of a substitute such as sandwiches?

- A) Figure A B) Figure B C) Figure C D) Figure D

If sandwiches become more expensive, people will substitute sandwiches with pizza. Thus demand for pizza will increase or shift to right. Supply curve is not affected.

ANSWER=Figure A

13) Figure 1 shows the market for pizza. Which figure shows the effect of an increase in the price of the tomato sauce used to produce pizza?

A) Figure A B) Figure B C) Figure C D) Figure D

Tomato sauce is an input to produce pizza. If its price increases, cost of producing pizza increases. Then profit of pizza production decreased. Then supply will decrease or shift to left.

ANSWER=Figure C

14) Figure 1 shows the market for pizza. Which figure shows the effect of a new report by the U.S. Surgeon General that pizza, as a part of the Mediterranean diet, contributes to lower cholesterol levels?

A) Figure A B) Figure B. C) Figure C D) Figure D

After this report, demand for pizza will increase. It will shift to right.

ANSWER=Figure A

15) The quantity of cars that firms plan to sell this month depends on all of the following except the

A) quantity of cars that people plan to buy.

B) price of a car.

C) wage rate of workers who produce cars.

D) price of wheels that are used to produce cars

Quantity supplied of cars do not depend on quantity demanded.

ANSWER= A

Quantity supplied of cars depend on price of a car, wage rate and price of inputs like wheels.

16) Country A can produce 100 units of Good X in a day and 40 units of Good Y while Country B can produce 50 units of Good X and 40 units of Good Y.

A) These countries should trade since Country A has a comparative advantage in the production of Good X and Country B has a comparative advantage in the production of Good Y.

B) These countries should trade since Country B has a comparative advantage in the production of Good X and Country A has a comparative advantage in the production of Good Y.

C) These countries will not trade since Country A has a comparative advantage in the production of both goods.

D) These countries will not trade since Country A will always be able to take advantage of Country B.

For country A, the opportunity cost of producing 100 X= 40Y

For country A, the opportunity cost of producing 1 X= 0.4Y (=40/100)

For country B, the opportunity cost of producing 50 X= 40Y

For country B, the opportunity cost of producing 1 X= 0.8Y (=40/50)

**Country A has a lower opportunity cost of producing X.
Similarly, Country B has a lower opportunity cost of producing Y.
Country A has a comparative advantage in producing X.
Similarly, country B has a comparative advantage in producing Y.**

ANSWER = A

17)Country A can produce 100 units of Good X in a day and 40 units of Good Y while Country B can produce 50 units of Good X and 40 units of Good Y.

- A)Country A has an absolute advantage in production of good X
- B) Country B has an absolute advantage in production of good X
- C) Country B has an absolute advantage in production of both goods
- D)None of the above

ANSWER=A since country A can produce more of good X than country B

18)The law of demand concludes that a rise in the price of a golf ball _____ the quantity demanded and _____.

- A)increases; shifts the demand curve for golf balls rightward.
- B)increases; creates a movement down along the demand curve for golf balls.
- C)decreases; creates a movement up along the demand curve for golf balls.
- D)decreases; shifts the demand curve for golf balls leftward.

Higher price implies lower quantity demand. It is movement up along the demand curve.

ANSWER=C

The demand curve does not shift when the price of the good itself changes.

19)A supply curve shows the relation between the quantity of a good supplied and

- A)the price of the good. Usually a supply curve has positive slope.
- B)income. Usually a supply curve has negative slope.
- C)the price of the good. Usually a supply curve has negative slope.
- D)income. Usually a supply curve has positive slope.

On the supply curve, the two related variables are price and quantity supplied. It is upward sloping so it has a positive slope.(by law of supply)

20) Which of the following is true about ppf (production possibilities frontier)?

- A) Points on the ppf show trade off since when you move from one point on the ppf to another, you increase the production of one good but at the expense of decreasing that of the other good
- B) Some points outside the ppf are unattainable because of scarce resources
- C) A ppf has a bowed outward shape because of increasing opportunity cost
- D) All of the above

ANSWER=D

PART 2-SHORT ANSWER QUESTIONS (Total 50 points)

please write your answer to the corresponding blanks

1) Total 15 points

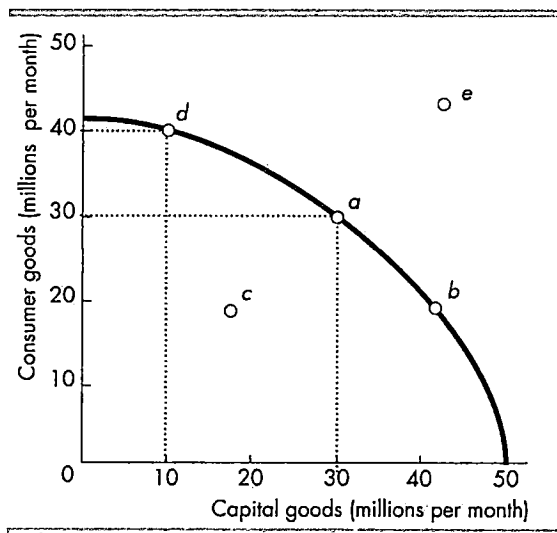


Figure 2

a) Refer to the production possibilities frontier in Figure 2. Which point indicates that resources are NOT fully utilized or are misallocated?—

-POINT C. Inside the ppf is not efficient due to misallocation or unemployment of resources.-----

b) Refer to the production possibilities frontier in Figure 2. Which point is unattainable?

-----POINT E since outside the ppf is unattainable.-----

c) Refer to the production possibilities frontier in Figure 2. How can the country succeed to produce at an unattainable point?

BY ECONOMIC GROWTH

Since if the country has economic growth , the ppf shifts outward.

d) Refer to the production possibilities frontier in Figure 2. Among the points a,b,c,d,e, which one(s) are efficient and attainable?

POINTS A,B,D are efficient and attainable since they are ON the ppf

e) Refer to the production possibilities frontier in Figure 2. If the country moves from point *d* to point *a*, find the opportunity cost of the move

If the country moves from point *d* to point *a*, it produces 20 more capital goods but at the expense of 10 less consumer goods. SO THE OPPORTUNITY COST OF THE MOVE= PRODUCING 10 LESS CONSUMER GOODS.

f) Refer to the production possibilities frontier in Figure 2. If the country moves from point *a* to x-intercept (50 capital goods, 0 consumer goods), find the opportunity cost of the move .

The country produces 20 more capital goods but at the expense of producing 30 less consumer goods in this case., SO THE OPPORTUNITY COST OF THE MOVE= PRODUCING 30 LESS CONSUMER GOODS.

g) Refer to the production possibilities frontier in Figure 2. If the country starts at point d and moves to right, first to point a and then to point b, how does the opportunity cost of capital goods change? Why?

If the country starts at point d and moves to right, first to point a and then to point b, the opportunity cost of capital goods increase. It is because resources are not equally productive of producing consumer goods and capital goods.

2) Total 15 points

Price (dollars per cellular phone)	Quantity demanded (thousands)	Quantity supplied (thousands)
100	50	100
80	55	80
50	60	60
20	100	40

Table 1

a) Using the data in Table 1, find the equilibrium price and equilibrium quantity.

**When $P=50$, quantity demand=quantity supply.
Thus equilibrium price =50 and equilibrium quantity=60**

b) Using the data in Table 1, what will occur in the economy at the price of \$80 a phone? Why? What is the tendency of the price in this case?

**When $P=80$, quantity demand=55, quantity supply=80
When $P=80$, quantity demand is less than quantity supply.
When $P=80$, we have excess supply or surplus of 25**

During surplus, price has a tendency to decrease since producers compete by reducing the price.

d) Using the data in Table 1, plot the demand and supply curves on the same graph and show the equilibrium point on the graph.

2)e) Use the data in Table 1. Suppose a research which proves that using cell phone causes serious health problems, is published in a popular magazine. How will the demand and supply curves change? Show the shifts or movements graphically.

Show the new equilibrium on the graph

How does the equilibrium price and quantity change after this research?

Because of the research which proves that using cell phone causes serious health problems, is published in a popular magazine, demand will decrease. So the demand curve will shift to left. However supply curve does not change. Both the equilibrium price and quantity will decrease.

f) Use the data in Table 1. Suppose the price of electronic circuits used to produce cell phones increased. How will the demand and supply curves change? Show the shifts or movements graphically. Show the new equilibrium on the graph

How does the equilibrium price and quantity change?

Since the price of electronic circuits used to produce cell phones increased, cost of production increases, profit decreases, thus supply decreases. It means supply curve will shift to left. However the demand curve does not change. The equilibrium price will increase and equilibrium quantity will decrease.