

Economics 102
 Feb. 24, 2010
 First Midterm

Student Name : _____
 Section # : _____
 TA Name : _____
 Student ID # : _____

Version 1

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

You have 50 minutes to complete the exam. The exam consists of 10 binary choice and 20 multiple choice questions. Each binary choice question is worth 2 points and each multiple choice question is worth 4 points for a total of 100 points. Please 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 and other information:

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.
5. 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.
6. 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:

<u>Han.Han</u>	Pedro.Hancevic	Haixi.Li	George.Loginov
<u>353</u> 2:25PM W SS6322	<u>355</u> 9:55AM F ING 122	<u>350</u> 3:30PM W SS5322	<u>351</u> 3:30PM M SS6314
<u>356</u> 9:55AM F 214 ING	<u>358</u> 12:05PM F BASCOM 58	<u>361</u> 1:20PM F IMGRAHAM 23	<u>352</u> 2:25PM W SS6314
<u>359</u> 12:05PM F SS 5231	<u>362</u> 1:20PM F BASCOM 55		<u>354</u> 8:50AM F Bascom 55

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 _____

Binary Choice (2 points for each question)

1. Lucy is a US citizen, but she teaches English in China. Is Lucy's salary part of the United States GDP?

- a. Yes
- b. No

Answer: b

2. Consider the market for computers in Madison. Suppose that factory workers who produce computers are on strike so fewer computers are provided. At the same time lots of international students come to UW Madison and they need computers. Which statement is true?

- a. Based on the above description, there will be a shift of both the demand and supply curves and the equilibrium price of computers will increase.
- b. Based on the above description, there will be a shift of both the demand and supply curves and the equilibrium quantity of computers will increase.

Answer: a

3. When a price floor is imposed in a market and the price floor is set above the equilibrium price of the good, then

- a. there will be a shortage of the good.
- b. there will be a surplus of the good.

answer: b

4. Suppose consumers believe strawberries and blueberries are substitutes. There is a hurricane in Florida that destroyed this year's crop of Florida strawberries. Holding everything else constant, we know that this change will result in a movement along the demand curve for blueberries.

- a. True
- b. False

Answer: b

5. Real GDP is always smaller than nominal GDP.

- a. True
- b. False

answer: b

6. Suppose Japan only produces cars and computers and the opportunity cost of producing these two goods is constant. Suppose the technology for producing cars improves. Given this change, the PPF of Japan will shift outwards from the origin but be parallel to the initial PPF.

- a. True
- b. False

answer: b

7. “The national debt is too large, the government must stop spending so much money.” This statement is

- a. a normative statement
- b. a positive statement

answer: a

8. A quota is a policy implemented by the government to set a maximum amount of the good or service that can be sold (bought) in the market. As a result, the quota has no effect if it is set at a level greater than the equilibrium quantity.

- a. True
- b. False

Answer: a

9. Consider an Economy which produces only two goods, good X and good Y. Suppose the PPF for these two goods can be described by the equation $Y = 27 - 3X$. Then, the points $(X,Y)=\{(4,13);(9,0);(27,0)\}$ are all efficient production possibilities.

- a. True
- b. False

Answer: b

10. Should the value of a used car, at its sale price, be included in this year’s GDP?

- a. Yes
- b. No

answer: b

Multiple Choice (4 points for each question)

11. To avoid double counting when computing GDP for an economy, it is important to
- count the total value of each producer's sales in an economy.
 - only count each producer's value added in the calculation.
 - include the value of the sales at each stage of production.
 - exclude the cost of all inputs at each stage of production.

Answer: b

Answer the next two questions using the following information:

Consider the market for peppers in a closed economy that has domestic demand and domestic supply given by $P = 30 - Q$ and $P = 2Q$, respectively, where P is the price per unit of peppers and Q is the quantity of peppers.

12. Then the domestic equilibrium price is
- \$10 per unit.
 - \$15 per unit.
 - \$25 per unit.
 - \$20 per unit.

Answer: d

13. Now assume that trade is allowed and that the international price of peppers is \$10 per unit. Also assume that the government creates a tariff that effectively raises the market price for peppers to \$15 per unit in the domestic market. What is the tariff revenue the government earns with this tariff?

- \$18.75
- \$56.25
- \$37.50
- \$112.5

Answer: c

14. Consider two goods, good X and good Y. Suppose the price of good Y decreases. Holding everything else constant, the demand for good X decreases. Goods X and Y are

- substitutes.
- complements.
- inferior goods since as the price decreases people choose to consume less of the good.
- not related to one another.

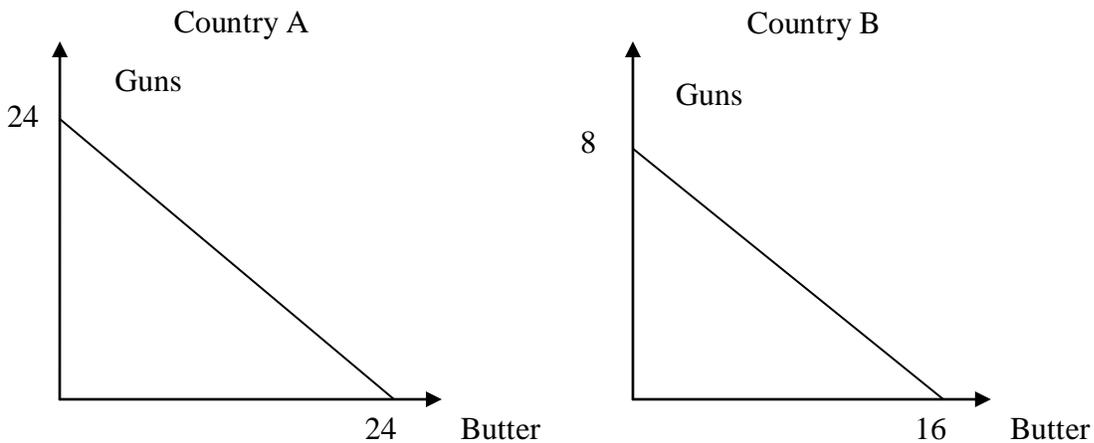
Answer: a

15. Suppose the demand for tea in India is $P = 1200 - 2Q$ while the supply is $P = 300 + 4Q$. Furthermore suppose that the market for tea in India is a closed market. Suppose India limits the number of units of tea that can be traded in this market to 100 units. Instead of limiting the quantity of the good that can be traded, India could impose an excise tax (an excise tax is a tax levied on each unit of the good consumed) on tea. What would the excise tax amount per unit of tea need to be in order for the two policies to be equivalent?

- a) \$300 per unit of tea
- b) \$250 per unit of tea
- c) \$200 per unit of tea
- d) \$100 per unit of tea

answer: a

There are 2 countries, A and B. They both can produce either guns or butter (measured in pounds). Their respective linear PPFs are shown in the following graph. Use this information to solve the following **two** questions.



16. Which of the following statements is **NOT** true?
- a. Country A has absolute advantage in gun production.
 - b. Country B has comparative advantage in butter production.
 - c. Country B's opportunity cost of 2 more guns is 4 pounds of butter.
 - d. Country A's opportunity cost of 1 more butter is 0.5 guns.

Answer: d

17. Suppose Country B wants to sell 10 pounds of butter to Country A. Which of the following prices is **NOT** a possible price for these 10 pounds of butter?

- a. 4 guns
- b. 5 guns
- c. 6 guns
- d. 7 guns

Answer: a

18. A small country's domestic demand and supply curves for calculators are $P = 13 - Q$ and $P = 7 + Q$. The world price is \$8. When the economy moves from a closed economy to free trade, which of the following statements is true?

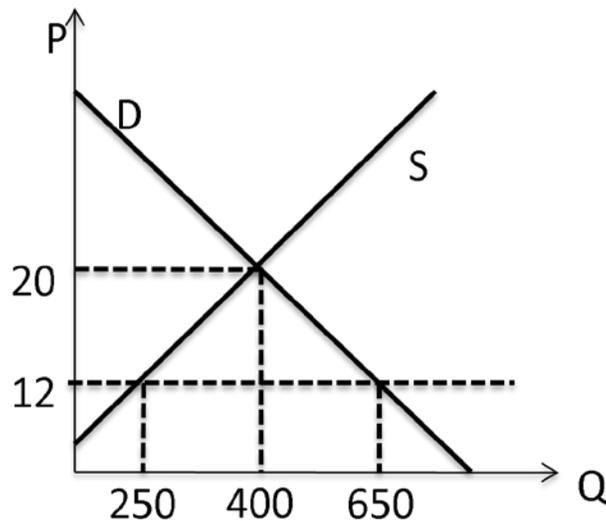
- a. The domestic producers are better off.
- b. The domestic consumers are worse off.
- c. This country will import calculators from other countries.
- d. The price of each calculator will be higher.

Answer: c

19. A point lying outside the PPF indicates that

- a. the economy is experiencing inflation.
- b. the economy has absolute advantage in the production of both goods.
- c. in this economy there are not enough resources available to produce this combination of the two goods.
- d. the economy is experiencing economic growth in the production of the two goods.

Answer: c

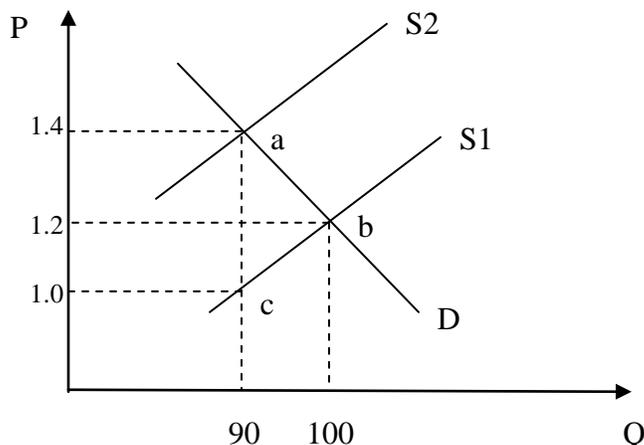


20. The US wine market is initially closed to trade (autarky) and the equilibrium price is \$ 20 per bottle of wine. Suppose the US opens its wine market to trade with Argentina and the new equilibrium price in the US is \$12 per bottle of wine. What impact will this open trade have on the level of US GDP if all other markets are not affected by the opening of the US wine market to trade with Argentina?

- a. consumption increases by \$265, Net Exports increase by \$450
- b. consumption falls by \$200, Net Exports fall by \$4800
- c. consumption increases by \$200, Net Exports fall by \$4800
- d. consumption falls by \$200, Net Exports increase by \$4800

Answer: b

Answer the next **two** questions based on the figure below.



21. The market for gasoline was initially in equilibrium at point b. Suppose a quota of $Q=90$ is imposed in this market. What does the triangular area *abc* represent?
- the welfare that consumers will lose
 - the profit that producers will lose
 - the deadweight loss created by the quota
 - the revenue the government earns when it implements this quota

Answer: c

22. What is the loss in consumer surplus after the quota is imposed?
- \$19
 - \$18
 - \$28
 - \$2

answer: a

23. The market for books has two producers with individual supply curves $P = 5 + Q$ and $P = \frac{1}{2}Q$, where P is price and Q is quantity supplied. What is the market supply curve for books?

- $P = 5 + \frac{3}{2}Q$ for all price levels
- $P = \frac{1}{2}Q$ for $0 \leq P \leq 5$ and $P = 5 + \frac{3}{2}Q$ for $P \geq 5$
- $P = 2Q$ for $0 \leq P \leq 5$ and $P = 3Q - 5$ for $P \geq 5$
- $Q = 2P$ for $0 \leq P \leq 5$ and $Q = 3P - 5$ for $P \geq 5$

Answer d

24. Which of the following would be the most appropriate for the measurement of differences in the average standard of living of people at different points of time?
- nominal GDP
 - real GDP

- c. nominal GDP per capita
- d. real GDP per capita

Answer: d

25. The table below gives information about the demand and supply schedules for a good. Suppose that a price ceiling of \$40 is implemented in this market.

Price	Quantity demanded	Quantity supplied
\$20	200	0
\$40	150	50
\$60	100	100
\$80	50	150
\$100	0	200

As a result of the implementation of the price ceiling there is

- a) an excess demand of 100 units.
- b) an excess supply of 100 units.
- c) no effect in this market since the price ceiling is set below the equilibrium price.
- d) a temporary shortage of the good that will last until prices adjust to eliminate this shortage.

Answer: a

26. Consider the market for bananas, a normal good. Suppose that the income of consumers increases while at the same time the cost of producing bananas decreases. Which of the following phenomena will we surely observe?

- a) The demand curve for bananas will shift to the right and the supply curve for bananas will also shift to the right.
- b) There will be an increase in the equilibrium quantity and a decrease in the equilibrium price of bananas.
- c) There will be a decrease in the equilibrium quantity and an increase in the equilibrium price of bananas.
- d) The demand curve for bananas will shift to the right and the supply curve for bananas will shift to the left.

Answer: a

27. Suppose the year is 1776 and a group of Boston citizens has just destroyed a shipment of tea by dumping it into the Boston Harbor. Holding everything else constant, what do you predict happens to the equilibrium price and quantity in the Boston sugar market after this dumping of tea?

- a) The equilibrium price of sugar rises while the equilibrium quantity of sugar decreases.
- b) The equilibrium price of sugar rises and the equilibrium quantity of sugar increases.
- c) The equilibrium price of sugar decreases and the equilibrium quantity of sugar decreases.
- d) The equilibrium price of sugar decreases while the equilibrium quantity of sugar increases.

answer: c

28. Which of the following would cause an increase in the price of gasoline and a reduction in the equilibrium quantity exchanged in the gasoline market?

- a. an increase in the price of crude oil, a key ingredient required for the production of gasoline.
- b. the introduction of hybrid technology that substantially improves the gas mileage of automobiles
- c. a recession that substantially reduces the income of households
- d. an increase in the popularity and use of Sport Utility Vehicles that consume a lot of gasoline per mile driven

Answer: a

29. If apples and oranges are substitutes,

- a. an increase in the price of apples will increase the demand for oranges.
- b. an increase in the price of oranges will decrease the demand for apples.
- c. an increase in the price of oranges will decrease the quantity of apples demanded.
- d. an increase in the price of apples will shift the demand curve for oranges to the left.

Answer: a

30. Which of the following would contribute to US GDP?

- a. An American company buys stock in another American company.
- b. An American company produces goods in Canada.
- c. A Canadian company buys stock in an American company.
- d. A Canadian company produces goods in the United States.

answer: d