

Economics 101  
Professor Brown  
February 24, 2004

**Midterm 1**  
**Version 11**

**Name:** \_\_\_\_\_

**Section #:** \_\_\_\_\_

**TA:** \_\_\_\_\_

*(Please see last page for discussion section and TA listings)*

Please do not open this exam until instructed to do so. All 30 questions are multiple-choice. Choose the best answer for each question, and fill in the corresponding circle on the bubble sheet provided. Please use a number two pencil on the bubble sheet. Fill in your answers completely.

You may write on this exam question booklet, but anything you write here will not be graded. You must hand in both this exam question booklet and the bubble sheet before leaving the exam room.

Please... **no** calculators or scratch paper. If you have a question, please raise your hand and a proctor will assist you.

On the bubble sheet, be sure to include you name, id number, section number, and the version number of your exam (found at the top of this page).

You have 65 minutes to complete the exam. Good luck!

1. Jane produces only corn and cloth. Taking account of her preferences for corn and cloth
  - a. makes her production possibilities frontier straighter.
  - b. makes her production possibilities frontier steeper.
  - c. makes her production possibilities frontier flatter.
  - d. does not affect her production possibilities frontier.
  
2. Opportunity cost is
  - a. the best choice that can be made.
  - b. the highest-valued alternative forgone.
  - c. the monetary cost.
  - d. the indirect cost.

Use these equations for the next 4 questions.

Demand Curve:  $Q_D = 12 - P$ ,

Supply Curve:  $Q_S = 2P$

3. What is the equilibrium price and quantity in the market?
  - a.  $P=3, Q=6$
  - b.  $P=2, Q=10$
  - c.  $P=6, Q=6$
  - d.  $P=4, Q=8$
  
4. What is the price elasticity of demand at the equilibrium?
  - a.  $1/4$
  - b.  $1/2$
  - c.  $1$
  - d.  $2$
  
5. What is the price elasticity of supply at the equilibrium?
  - a.  $1/4$
  - b.  $1/2$
  - c.  $1$
  - d.  $2$
  
6. At a price of 5, there is a
  - a. surplus of 3 units of the good.
  - b. shortage of 3 units of the good.
  - c. shortage of 5 units of the good.
  - d. surplus of 5 units of the good.

The following two equations describe a labor market.  $P$  represents workers' hourly wage,  $Q_S$  the hours workers supply to the market, and  $Q_D$  the worker-hours employers demand from the market. Use these equations for the next 2 questions.

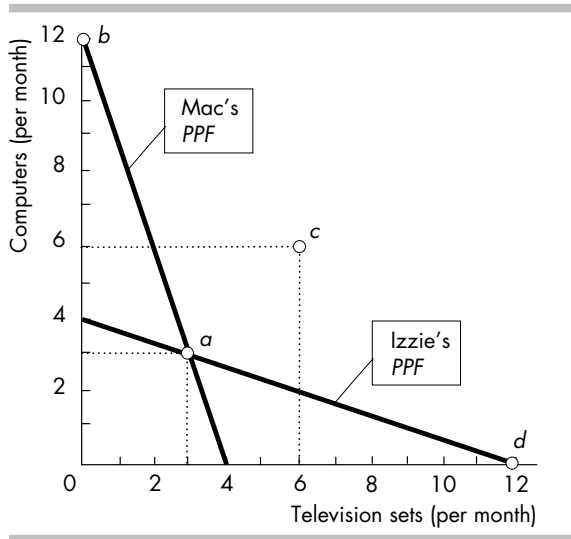
Demand Curve:  $Q_D = 100 - 15P$ ,

Supply Curve:  $Q_S = 5P$

7. A minimum wage of \$4 per hour is imposed on this market. Is this a price ceiling or a price floor? Does this price ceiling or floor bind in equilibrium?
  - a. This is a price ceiling; it binds.
  - b. This is a price floor; it doesn't bind.
  - c. This is a price floor; it binds.
  - d. This is a price ceiling; it doesn't bind.
  
8. Is there a shortage, surplus, or neither of worker hours in the market with the minimum wage? If there is a shortage or surplus of worker hours, what do we call this shortage or surplus?
  - a. Surplus; unemployment.
  - b. Shortage; unemployment.
  - c. Neither.
  - d. Shortage; excess demand.
  
9. The income elasticity of demand for bicycles is +10, which implies that bicycles are
  - a. an inferior good.
  - b. a normal good.
  - c. a substitute good for motorbikes.
  - d. a complement good for motorbikes.
  
10. If Sam is producing at a point on his production possibilities frontier, then he
  - a. cannot produce any more of either good.
  - b. can produce more of one good only by producing less of the other.
  - c. will be unable to gain from trade.
  - d. is not subject to scarcity.
  
11. A person has a comparative advantage in producing a particular good if that person
  - a. has higher productivity in producing it than anyone else has.
  - b. can produce it at lower opportunity cost than anyone else can.
  - c. has less desire to consume that good than anyone else has.
  - d. has more human capital related to that good than anyone else has.

Country A		Country B	
Good X (units of X)	Good Y (units of Y)	Good X (units of X)	Good Y (units of Y)
0	16	0	12
2	12	2	9
4	8	4	6
6	4	6	3
8	0	8	0

12. In the table above, both country A and country B face constant production trade-offs between units of output X and units of output Y. Country A is producing 4 units of X and 8 units of Y and country B is producing 4 units of X and 6 units of Y. The opportunity cost of producing more of
- good X is the same for both countries.
  - good Y is the same for both countries.
  - good X is lower in country A.
  - good Y is lower in country A.
13. In the table above, country B is producing 4 units of X and 6 units of Y. For country B, the opportunity cost of producing an additional unit of X is
- 4 units of Y.
  - 2 units of Y.
  - $\frac{3}{2}$  units of Y.
  - 1 unit of Y.

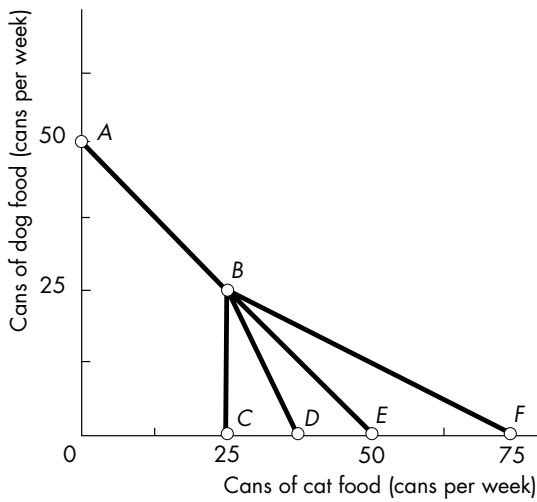


14. In the figure above, suppose that Mac and Izzie specialize and trade to reach point

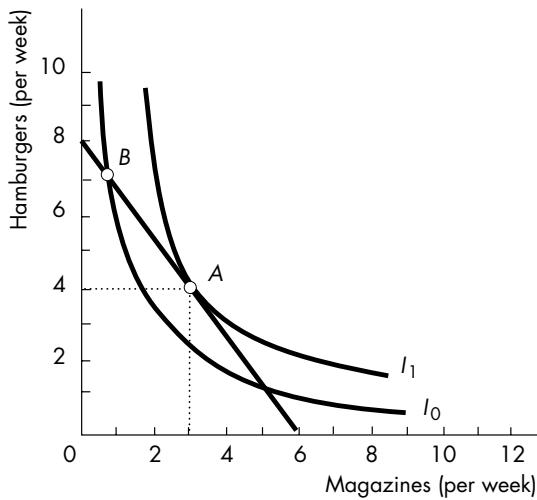
*c*. Mac sends Izzie

- a. 12 computers in exchange for 12 TVs.
- b. 12 computers in exchange for 6 TVs.
- c. 6 computers in exchange for 12 TVs.
- d. 6 computers in exchange for 6 TVs.

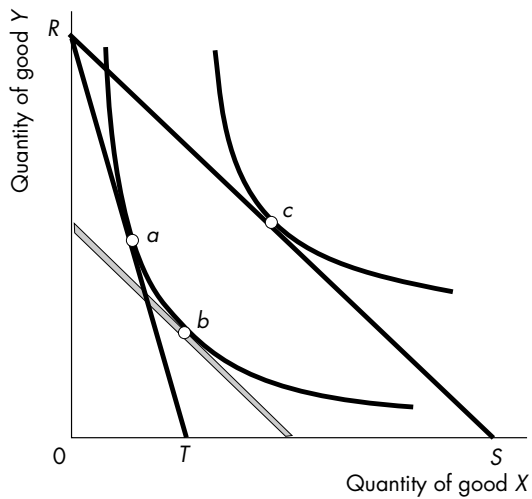
15. Lily is a college student who likes to buy only two goods: Cheetos and Pepsi. To determine Lily's budget line, you need to know
- I. Lily's preferences for Cheetos and Pepsi.
  - II. The prices of Cheetos and Pepsi.
  - III. Lily's income.
- a. II only.
  - b. I and II.
  - c. II and III.
  - d. I, II and III.
16. Lily is a college student who likes to buy only two goods: Cheetos and Pepsi. To determine how Lily can maximize her utility from consuming Cheetos and Pepsi, you need to know
- I. Lily's preferences for Cheetos and Pepsi.
  - II. The prices of Cheetos and Pepsi.
  - III. Lily's income.
- a. I only.
  - b. I and II.
  - c. II and III.
  - d. I, II and III.



17. Morris has an income of \$100 per week. The price of dog food is \$2 per can and the price of cat food is \$2 per can. However, there is a volume discount for cat food: If he buys more than 25 cans per week, the price of an additional can is only \$1. In the above figure, Morris's budget line runs through points
- $A$ ,  $B$ , and  $C$ .
  - $A$ ,  $B$ , and  $D$ .
  - $A$ ,  $B$ , and  $E$ .
  - $A$ ,  $B$ , and  $F$ .



18. In the above figure, at the best affordable point, the marginal rate of substitution is
- 0.5 hamburgers per magazine.
  - 1 hamburger per magazine.
  - 1.33 hamburgers per magazine.
  - 8 hamburgers per magazine.



19. In the above figure, if the budget line shifts from  $RT$  to  $RS$ , the substitution effect is illustrated by the move from

- a.  $a$  to  $b$ .
- b.  $a$  to  $c$ .
- c.  $b$  to  $c$ .
- d.  $T$  to  $S$ .

20. In the above figure, if the budget line shifts from  $RT$  to  $RS$ , the income effect is illustrated by the move from

- a.  $a$  to  $b$ .
- b.  $a$  to  $c$ .
- c.  $b$  to  $c$ .
- d.  $T$  to  $S$ .

21. For the choice between labor and leisure, the substitution effect
- encourages less labor and more leisure as wages rise.
  - encourages less leisure and more labor as wages rise.
  - generally exceeds the income effect at high wages.
  - generally equals the price effect at high wage rates.
22. Which of the following is a normative statement?
- The employment cost of a minimum wage is worth it for the associated income increase among employed lower-skilled workers.
  - Employment among lower-skilled workers decreases when the minimum wage increases.
  - Average income of lower-skilled workers increases when the minimum wage is increased.
  - Most economists agree that employment among lower-skilled workers decreases when the minimum wage increases.
23. Which of the following is a positive statement?
- Most economists agree that employment among lower-skilled workers decreases when the minimum wage increases.
  - The sky is orange.
  - The sky should be orange.
  - a. & b.*
24. The demand for a good is price elastic if
- an increase in its price results in an increase in total revenue.
  - a decrease in its price results in a decrease in total revenue.
  - an increase in its price results in a decrease in total revenue.
  - the good is a necessity.
25. You observe that the price and quantity exchanged have both decreased in the market for muskmelon. This could be the result of
- A decrease in demand and no change in supply.
  - An increase in supply and no change in demand.
  - A decrease in demand and a simultaneous increase in supply.
  - a. & c.*

26. When a market is in equilibrium,
- everyone has all they want of the commodity in question.
  - there is no shortage and no surplus at the equilibrium price.
  - the number of buyers is exactly equal to the number of sellers.
  - the supply curve has the same slope as the demand curve.
27. Bicycles are made out of steel. If the price of steel increases, there would be a shift in the supply curve of bicycles that would lead to
- a shift in the demand curve for bicycles.
  - a temporary surplus of bicycles.
  - a permanent surplus of bicycles.
  - an increase in the price of a bicycle.
28. A herd of beef cattle suffering from mad cow disease is discovered in Wisconsin. What happens in the market for beef in Wisconsin?
- Demand decreases, Supply decreases, Q exchanged decreases, P change is ambiguous.
  - Demand decreases, Supply decreases, Q change is ambiguous, P decreases.
  - Demand is unchanged, Supply decreases, Q exchanged decreases, P change is ambiguous.
  - Demand decreases, Supply is unchanged, Q exchanged decreases, P increases.
29. Nobel laureate Michael Spence, in his 1973 paper on job market signaling, demonstrated that
- Education must include training in productive skills for employers to value educated workers over uneducated workers.
  - Education need not include training in productive skills for employers to value educated workers over uneducated workers.
  - Educating higher-skilled workers is useless.
  - Educating all workers is useless.
30. According to Spence, for a UW degree to serve as a meaningful signal of high worker ability, UW degrees must be
- Earned through a skill-building process.
  - Based on abilities in specific sets of productive activities.
  - More difficult or costly for a lower-ability worker to earn than for a higher-ability worker to earn.
  - For life-long Badger fans!