

Midterm1: Fall 2006
Macroeconomics 201
Prof. Gordon
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NAME:.....

Total Points: 60 (20 MC + 40 Short Answer)

MULTIPLE CHOICE ANSWER SHEET (20 Points)

1.A	11.C
2.A	12.E
3.A	13.C
4.A	14.A
5.D	15.D
6.D	16.A
7.A	17.B
8.B	18.D
9.A	19.C
10.C	20.B

SHORT ANSWER SECTION: (40 Points)

Question1: (16 Points)

Suppose that a two-person economy can allocate its resources to the production of two different goods: Research papers and textbooks. Each agent in the economy has his own production technology and the table below shows the maximum amounts of research papers and textbooks that the two agents, Professor A and Professor B, can produce if they only produce one good:

	Research Papers	Textbooks
Professor A	10	8
Professor B	6	9

- A. Suppose that PPF's are straight lines. Draw each professor's PPF, putting Research papers on the vertical axis. (4 Points)
- B. What is each professor's opportunity cost of producing an additional textbook in terms of lost production of research papers? What is each professor's opportunity cost of producing an additional research paper in terms of lost production of textbooks? (4 Points)

Answer: Prof.A: $MC(\text{Research Paper in terms of textbooks}) = 0.6$
Prof.B: $= 9/8$

- C. What is Professor A's comparative advantage? What is Professor B's comparative advantage? Does either professor have an absolute advantage, if so which one? (4 Points)

Answer: Prof.A has comparative adv. in Res.Papers, B in textbooks.

Neither has absolute adv.

D. Can the two professors gain from trade? Explain your answer. Give an example of a consumption for Professor A and a consumption for Professor B that they are able to attain with trade but that they could not attain without trading. Please draw each professor's consumption point in your part A) diagram. Where is it in relation to each professor's PPF? Assume that the price at which they can trade is 1 Research Paper for 1 Textbook. (4 Points)

Answer: many possibilities: one example: A produces 10 RPs, B produces 9 TBs. And then A consumes (5RP, 5TB) and B consumes (5RP, 4TB). This is better than what they can achieve without trade.

Question2: (24 Points)

P	Q ^D	Q ^S
8	8	6
10	6	10

P: Price of a Movie ticket
 Q^D: Quantity demanded
 Q^S: Quantity supplied

1. Write down the demand and supply equation in the format: $P = a + b \cdot Q$ (4 Points)

Answer: $P = -Q^D + 16$ $P = Q^S/2 + 5$

2. Plot the demand and supply curves. Denote the Y-intercepts and the slopes of each curve. (2 Points)

3. Compute the equilibrium price and quantity. (4 Points)

Answer: $P_e = 26/3$ $Q_e = 22/3$

4. The government thinks that going to the movies is essential for the well-being of its citizens. It therefore imposes a price ceiling of \$7. After the imposition of the price ceiling, will the market for movies be in equilibrium, or will there be a shortage or surplus? If there is a shortage or surplus, how big will it be? (2 Points)

Answer: Shortage ($9 - 4 = 5$)

5. There is a new government, and it has strong ties to the movie industry. It strikes down the old price ceiling, and replaces it with a price floor of \$5. Same question: is the market for movies in equilibrium, shortage, or surplus? If there is a shortage or surplus, how big is it? (2 Points)

Answer: Equilibrium

6. The DVD industry decides to halve the price of its DVDs. As a result the demand for movie tickets drops. More specifically, for a given price the demand drops by 2. (4Points)

a. Write down the new demand equation.

Answer: $P = -Q^D + 14$

b. Without changing the slope of the supply curve, what should be the new supply curve such that the old equilibrium price that you calculated in part3 remains the same.

Answer: $P = Q^S/2 + 6$

7. Go back to the old situation. So, again use the demand and supply curves that you computed in part1.

The government now imposes a tax on the sellers of movie tickets of \$2 per ticket. (6 Points)

a. Write down the new supply equation (Hint: the vertical intercept of the supply curve increases by 2).

Answer: $P = Q^S/2 + 7$

b. Compute the tax revenue for the government.

Answer: $6 * 2 = 12$

c. Compute the deadweight loss.

$0.5 * [2 * (22/3 - 6)] = 22/3 - 6 = 4/3$

MULTIPLE CHOICE SECTION: (20 Points)

1. If Poland decides to increase the production of steel and decrease the production of vodka, a “bowed outwards” production possibilities frontier would suggest that there will be a(n) _____ opportunity cost of producing more steel

- A. increasing
- B. constant
- C. decreasing
- D. nonexistent
- E. Either A or B

2. If the production possibilities frontier is a straight line, which of the following is true?

- A. opportunity costs are constant
- B. the firm faces increasing costs
- C. The resources used to produce the two goods are different
- D. Both A and C

3. Fish and Coconut Production Possibilities

	Fish	Coconuts
Tom	12	8
Hank	5	5

The table shows the maximum amounts of fish and coconuts that Tom and Hank can produce if they only produce one good. Tom produces and consumes 9 fish and 2 coconuts, and Hank produces and consumes 3 fish and 2 coconuts. Now they decide to engage in trade. Which of the following statements is INCORRECT?

- A. For both to become better off, each should specialize in the production of one of the goods. However, since Hank is equally productive in both goods, it doesn't matter which each specializes in.
- B. For both to become better off, each should specialize completely in the goods in which he has a comparative advantage.
- C. After trade it is possible for Tom to consume 9 fish and 2.5 coconuts, and for Hank to consume 3 fish and 2.5 coconuts.
- D. For each individual, the consumption point after trade will lie outside that individual's production possibility frontier.

4. If the price of hamburger increases, it would probably result in _____ in the demand for hamburger buns.

- A. a decrease
- B. an increase
- C. no change
- D. random fluctuations

5. An increase in supply is caused by:

- A. an increase in input prices
- B. consumer's expectations of higher prices in the future
- C. an increase in the price of the good
- D. none of the above

6. Assume that corn is an input in the production of beef, but not in the production of pork. Further, beef and pork are substitutes. A decrease in the price of corn will:

- A. increase the supply of beef and increase the demand for pork
- B. decrease the supply of beef and increase the demand for pork
- C. decrease the supply of beef and decrease the demand for pork
- D. increase the supply of beef and decrease the demand for pork.

7. A binding price ceiling results in a/the price than the equilibrium price.

- A. lower
- B. higher
- C. same
- D. lower or higher or the same

8. When the government removes a binding price floor:

- A. quantity demanded would decrease, and quantity supplied would increase
- B. quantity demanded would increase and quantity supplied would decrease
- C. an excess demand would develop
- D. an excess supply would develop

9. If the U.S. government imposes a quota on the amount of French wine allowed into the U.S. (suppose the quota is set at a quantity below the equilibrium quantity), the price of French wine in the U.S. will _____ while the price of U.S. manufactured wine will _____

- A. increase, increase
- B. increase, decrease
- C. decrease, increase
- D. decrease, decrease

10. If the government raises the excise tax on gasoline by \$1 (suppose that the excise tax is imposed on the producer), then the consumer surplus will _____ and the producer surplus will _____ (hint: consider what an excise tax on the producer means in a supply-demand diagram)

- A. increase, increase
- B. increase, decrease
- C. decrease, decrease
- D. decrease, increase

11. From 1980 to 2000 the real earnings of college graduates increased _____ high school graduates, and from 2000 to 2004 the real earnings of college graduates increased _____ high school graduates.

- A. faster than, faster than
- B. slower than, slower than
- C. faster than, slower than
- D. slower than, faster than

12. The standard economist's method for estimating the value of leisure time is to use the value of the after-tax marginal wage, that is the wage that could be earned by working one additional hour. What are some of the weaknesses in this method discussed in readings and in class?

- A. People can't choose how many hours they work
- B. Taxes should not be deducted because taxes buy government services
- C. The method neglects the psychic value of both work and non-work activities
- D. A and B
- E. A and C

13. Which statement about externalities best represents the analysis presented in class?

- A. The government should put a tax on pollution because a quota is ineffective
- B. The government should put a quota on pollution created because a tax is ineffective
- C. The government should not try to eliminate all pollution because of rising cost
- D. The government should not try to eliminate all pollution because it should not interfere with the free market

14. A reading item suggested that even some farmers are beginning to oppose farm subsidies. Which new element has increased opposition to farm subsidies?

- A. Farm subsidies hurt farmers in poor countries
- B. Farm subsidies have not eliminated rural poverty
- C. Farm subsidies benefit rich farmers more than poor farmers
- D. Farm subsidies encourage obesity and tooth decay

15. Which of the following is true of a subsidy?

- A. It reduces consumer surplus but not producer surplus
- B. It reduces producer surplus but not consumer surplus
- C. The dead-weight loss from a subsidy is higher with elastic supply and demand curves
- D. The dead-weight loss from a subsidy is higher with inelastic supply and demand curves

16. Considering the effect of government farm programs on the consumption of high-calorie soft drinks, which of the following is true?

- A. Some government programs cut the consumption of high-calorie soft drinks, others increase the consumption of high-calorie soft drinks
- B. Government programs raise the consumption of high-calorie soft drinks
- C. Government programs reduce the consumption of high-calorie soft drinks
- D. Consumption of high-calorie soft drinks is a matter of taste, people are always able to consume sugar-free soft drinks and thus government programs have no effect

17. An increase in the supply of mathematically talented immigrants to the US from Eastern Europe would cause the _____ curve for _____ professors to shift to the right

- A. Demand; english
- B. Supply; economics
- C. Demand; economics
- D. Supply ; english

18. Which method was suggested in class as a method of easing traffic congestion and the shortage of taxis in New York City?

- A. Raise the quota on taxi medallions
- B. Raise the controlled price of taxi fares
- C. Introduce a tax on entry to midtown Manhattan administered by TV cameras
- D. A and C

19. The traditional objection to raising the minimum wage is that

- A. It causes inflation
- B. It causes unemployment of high-skilled workers
- C. It causes unemployment of low-skilled workers
- D. It is ineffective

20. The class discussion of gains from international trade claimed that the winners gain more than the losers lose. In this analysis the consumers are _____, workers at export industries are _____, and workers at import-competing industries are _____.

- A. losers; winners; losers
- B. winners; winners; losers
- C. winners; losers; winners
- D. losers; losers; winners