

**Instructions**

Print your name clearly on the answer sheet. Write and fill in the bubbles for your student number on the answer sheet. Include the dash of your student number in the first space and fill in the zero bubble to correspond with the dash. **Write your exam's form number on the answer sheet next to your name** (the form number is found at the bottom of this page).

Answer all of the following 25 questions (each worth 4 points). Mark your answers on the answer sheet.  
Keep this copy of the test - turn in only the answer sheet.

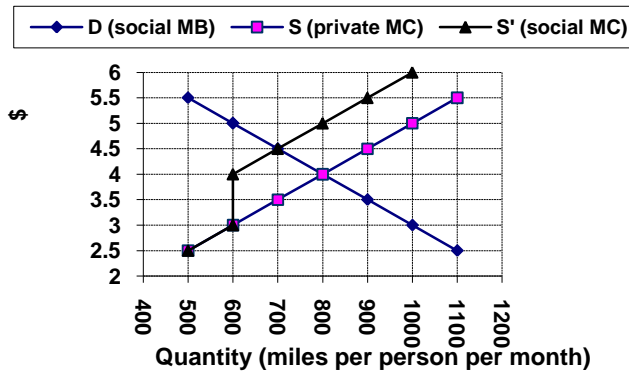
**No calculators are allowed in the exam and your answers to the test should consist entirely of your own work.**

Answers will be posted on the class web site as soon as possible. GOOD LUCK!

---

<u>Labor input</u> (workers per hour)	<u>Total Product</u> (bears/hour)	<u>Price</u> (\$/bear)
0	0	3
1	19	3
2	36	3
3	51	3
4	62	3
5	72	3
6	79	3
7	84	3

1. Suppose that the Fuzzy Wuzzy Wuzza Company has the production function above for producing stuffed bears. If the company wants to maximize profit, what is the **maximum** amount that the firm should pay the 7<sup>th</sup> worker per hour?
  - a. \$84.00
  - b. \$252.00
  - c. \$15.00
  - d. \$3.00
  - e. \$5.00
  
2. Suppose that flooding in the Midwest causes one-third of the corn crop there to be destroyed. Ceteris paribus, because the demand for corn is inelastic we could expect that overall
  - a. corn farmers' incomes will remain unchanged
  - b. corn farmers' incomes will decrease
  - c. corn farmers' incomes will increase
  - d. quantity demanded will increase because corn is more scarce
  - e. not enough information



3. Suppose that the graph above illustrates the marginal benefits and costs of car travel, where S represents the private supply curve (private marginal costs) and S' represents the social supply curve and reflects the full social costs of car travel (social marginal costs). D is the demand curve and represents the social marginal benefits of car travel. Suppose individuals are currently traveling 1000 miles per month. The marginal external cost is

- a. \$1.00
- b. \$2.00
- c. \$3.00
- d. \$4.00
- e. \$0.00

4. Suppose that the price of barley (a consumption substitute for wheat) increases. At the same time, the cost of resources used in producing wheat falls. The likely results in the wheat market would be

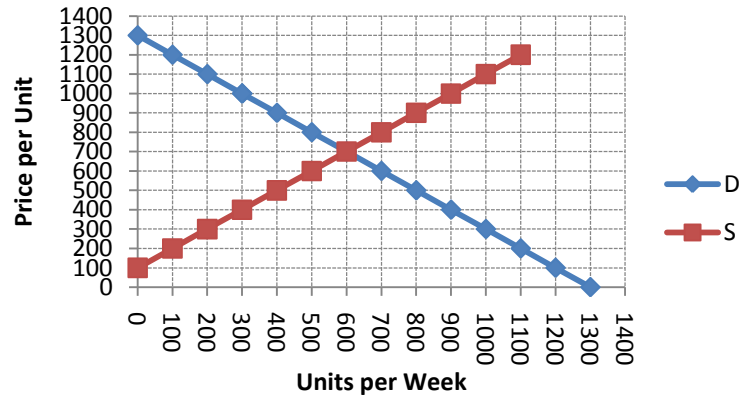
- a. quantity will fall, but the effect on equilibrium price is unknown
- b. quantity will rise, but the effect on equilibrium price is unknown
- c. quantity will rise and price will fall
- d. quantity will fall and price will fall
- e. the effect on both equilibrium price and equilibrium quantity is unknown

Quantity Demanded (bushels)	Price per Bushel (\$)	Quantity Supplied (bushels)
130	10	50
120	12	60
110	14	70
100	16	80
90	18	90
80	20	100
70	22	110

5. The table above shows the demand and supply for blueberries per week. Ceteris paribus if the price of fertilizer used to grow blueberries rises, a possible new equilibrium price and quantity of blueberries could be

- a. P = \$14, Q = 110 bushels per week
- b. P = \$14, Q = 70 bushels per week
- c. P = \$20, Q = 80 bushels per week
- d. P = \$20, Q = 100 bushels per week
- e. not enough information

6. Which of the following is most likely to result in a shortage of gasoline?
- The Organization of the Petroleum Exporting Countries (OPEC) reduces the amount of crude oil it supplies to world markets.
  - In response to higher crude oil prices, U.S. gasoline producers raise the price of the gasoline they sell.
  - The U.S. government imposes a price ceiling that is below the market price for gasoline.
  - The demand for gasoline rises.



7. The figure above illustrates the demand and supply of yogurt in a city per week. Suppose a price floor of \$900 per unit is imposed on this market. If the government supports the price floor by buying up the surplus yogurt, it will need to spend \_\_\_\_\_ per week. If they do this, consumer surplus is \_\_\_\_\_ per week and producer surplus is \_\_\_\_\_ per week.
- \$720,000; \$80,000; \$180,000
  - \$360,000; \$80,000; \$320,000
  - \$360,000; \$80,000; \$180,000
  - \$240,000; \$320,000; \$80,000
  - \$360,000; 0 units; 400units

Firm	Generator	SO2 Reduction	
		SO2 Emissions (tons)	Marginal Cost (per ton)
Firm 1	Unit A	500	\$100
	Unit B	500	\$300
Firm 2	Unit C	500	\$400
	Unit D	500	\$800

8. Suppose that the electric power industry is made up of two firms, each with two power-generating units. The table above shows the SO2 emissions for each firm and generator. Suppose also that the Environmental Protection Agency (EPA) wants to decrease SO2 emissions by 1000 tons. If the reduction in SO2 emissions occurs at the lowest possible cost, then the total cost of reducing the pollution is:
- \$100,000
  - \$200,000
  - \$250,000
  - \$50,000
  - \$400

Quantity Demanded (bushels)	Price per Bushel (\$)	Quantity Supplied (bushels)
130	10	50
120	12	60
110	14	70
100	16	80
90	18	90
80	20	100
70	22	110

9. The table above shows the demand and supply for blueberries per week. *Ceteris paribus*, if the price of cream (a complement consumption good) rises, a possible new equilibrium would be

- P = \$14, Q = 110 bushels per week
- P = \$14, Q = 70 bushels per week
- P = \$20, Q = 80 bushels per week
- P = \$20, Q = 100 bushels per week
- not enough information

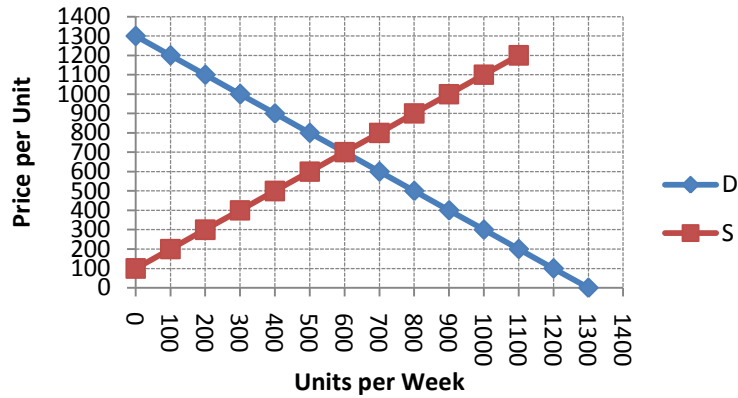
Total Number of Tents	Total Benefit (\$)	Total Cost (\$)
1	1,800	1,400
2	3,300	2,800
3	4,500	4,200
4	5,400	5,600
5	6,000	7,000
6	6,400	8,400

10. Karen is planning her wedding and needs to rent tents for an outdoor reception. The middle column in the table above reflects Karen's total benefits, or her total willingness to pay for tent rentals. The third column shows the total cost associated with renting from a local tent company. The optimal number of tents for Karen to rent is:

- Two
- Three
- Four
- Five
- Six

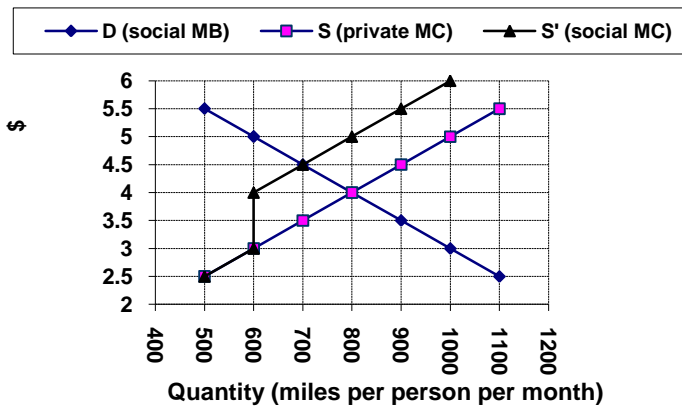
11. An economic system characterized by private resource ownership and public resource allocation decisions is a \_\_\_\_\_ economic system.

- Market capitalist
- Market socialist
- Command capitalist
- Command socialist



12. The figure above illustrates the demand and supply of yogurt in a city per week. Ceteris paribus, at equilibrium, consumer surplus is \_\_\_\_\_ per week, producer surplus is \_\_\_\_\_ per week.

- a. \$45,000; \$225,000
- b. \$600,000; \$600,000
- c. \$45,000; \$405,000
- d. \$180,000; \$180,000
- e. \$0; \$0



13. Suppose that the graph above illustrates the marginal benefits and costs of car travel, where S represents the private supply curve (private marginal costs) and S' represents the social supply curve and reflects the full social marginal costs of car travel (social marginal costs). D is the demand curve and represents the social marginal benefits of car travel. In the absence of government intervention, car travel will be

- a. 600 miles per person per month
- b. 700 miles per person per month
- c. 800 miles per person per month
- d. 900 miles per person per month
- e. Between 700 and 800 miles per person per month

14. Tacos and salsa are complement goods for consumers. If the price of tacos increases, ceteris paribus, we can expect

- a. the demand for salsa to rise
- b. the demand for tacos to fall
- c. the demand for salsa to fall
- d. the demand for tacos to rise
- e. both b and c are correct

15. Other things constant, the introduction of generic (non-brand name) drugs on the market tends to \_\_\_\_\_ the elasticity of demand for brand name drugs.
- increase
  - decrease
  - leave unchanged
  - none of the above

<u>Labor input</u> (workers/hour)	<u>Total Product</u> (bears/hour)	<u>Price</u> (\$/bear)
0	0	3
1	19	3
2	36	3
3	51	3
4	62	3
5	72	3
6	79	3
7	84	3

16. Suppose that the Fuzzy Wuzzy Wuzza Company has the production function above for producing stuffed bears. What is the **value of the marginal product** of the 4<sup>th</sup> worker?
- \$11 per hour
  - 11 bears per hour
  - \$186 per hour
  - 62 bears per hour
  - \$33 per hour

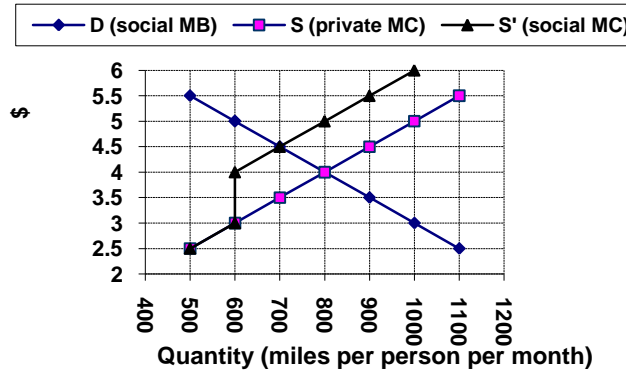
17. Each of two neighboring cities, Ramville and Bytopia, has its own computer industry that produces hardware and software. Each industry employs 500 workers. City officials are analyzing whether there will be gains from trade between the two cities. In a given year, the city of Ramville can produce either 500 units of software or 500 units of hardware. Bytopia, can produce either 500 units of software or 250 units of hardware. Based on this information and assuming constant opportunity costs for simplicity, \_\_\_\_\_ has a comparative advantage in producing hardware and \_\_\_\_\_ has a comparative advantage in producing software.
- Ramville; Bytopia
  - Bytopia; Ramville
  - Bytopia; Bytopia
  - Ramville; Ramville

18. Suppose that a union negotiates a much higher wage for workers in the mining industry. Ceteris paribus, this will generate \_\_\_\_\_ in the number of jobs in the industry. This change in the number of jobs will be greater when the demand for unionized labor in the mining industry is \_\_\_\_\_.
- an increase; elastic
  - an increase; inelastic
  - a decrease; elastic
  - a decrease; inelastic

Firm	Generator	SO2 Emissions (tons)	SO2 Reduction Marginal Cost (per ton)
Firm 1	Unit A	500	\$100
	Unit B	500	\$300
Firm 2	Unit C	500	\$400
	Unit D	500	\$800

19. Suppose that the electric power industry is made up of two firms, each with two power-generating units. The table above shows the SO2 emissions for each firm and generator. Suppose also that the Environmental Protection Agency (EPA) wants to decrease SO2 emissions by 1000 tons. If the EPA simply orders each firm to reduce pollution emissions from each generating unit by 50%, the total cost of reducing the pollution is:

- \$400,000
- \$800,000
- \$1,000,000
- \$250,000
- \$200,000



20. Suppose that the graph above illustrates the marginal benefits and costs of car travel, where S represents the private supply curve (private marginal costs) and S' represents the social supply curve and reflects the full social costs of car travel (social marginal costs). D is the demand curve and represents the social marginal benefits of car travel. The socially efficient amount of car travel is

- 600 miles per person per month
- 700 miles per person per month
- 800 miles per person per month
- 900 miles per person per month
- Between 500 and 600 miles per person per month

<u>Labor input</u> (workers per hour)	<u>Total Product</u> (bears/hour)	<u>Price</u> (\$/bear)
0	0	3
1	19	3
2	36	3
3	51	3
4	62	3
5	72	3
6	79	3
7	84	3

21. Suppose that the Fuzzy Wuzzy Wuzza Company has the production function above for producing stuffed bears. If the market wage is \$32.50 per hour, how many workers should Fuzzy Wuzzy Wuzza hire per hour in order to maximize its profits?

- 2 workers
- 3 workers
- 4 workers
- 5 workers
- 6 workers

22. Ceteris paribus, when government adopts a price floor to support an agricultural crop:

- Consumers benefit through lower prices.
- A shortage is likely unless farmers increase production.
- A shortage is likely unless farmers decrease production.
- The result is a surplus if the price floor is set above the market equilibrium price.
- The result is a surplus if the price floor is set below the market equilibrium price.

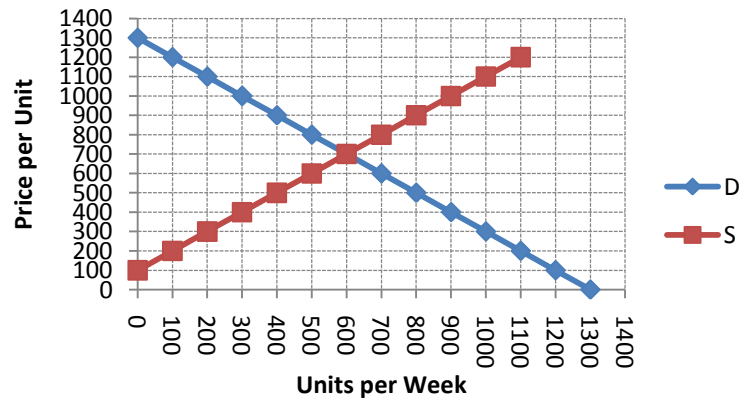
23. Suppose that at the current consumption levels, the marginal social benefit of smoking a pack of cigarettes in Bozeman is \$5.00 while the marginal social cost is \$7.00. From a social efficiency standpoint, government officials should

- take action to decrease smoking
- take no action regarding smoking
- take action to increase smoking
- provide tax breaks to smokers



Quantity Demanded (bushels)	Price per Bushel (\$)	Quantity Supplied (bushels)
130	10	50
120	12	60
110	14	70
100	16	80
90	18	90
80	20	100
70	22	110

24. The table above shows the demand and supply for blueberries per week. Ceteris paribus, if the government institutes a price floor of **\$22** per bushel, the result will be
- a surplus of 40 bushels per week
  - a shortage of 180 bushels per week
  - a surplus of 180 bushels per week
  - a shortage of 40 bushels per week
  - none of the above



25. The figure above illustrates the demand and supply of yogurt in a city per week. Suppose a price floor of \$900 per unit is imposed on this market. If the government takes no other action with respect to the price floor, consumer surplus is \_\_\_\_\_ per week and producer surplus is \_\_\_\_\_ per week.
- \$80,000; \$240,000
  - \$80,000; \$80,000
  - \$180,000; \$180,000
  - \$240,000; \$80,000
  - 400 units; 400units