

Economics 101
Professor Hendel
November 5, 2001

Midterm 2
Version 11

Name: _____

Section #: _____

TA: _____

(Please see last page for discussion section and TA listing)

Please do not open this exam until instructed to do so. All 30 questions are multiple-choice, to be answered on the bubble sheet provided. Please use a number two pencil on the bubble sheet. Fill in your answers completely.

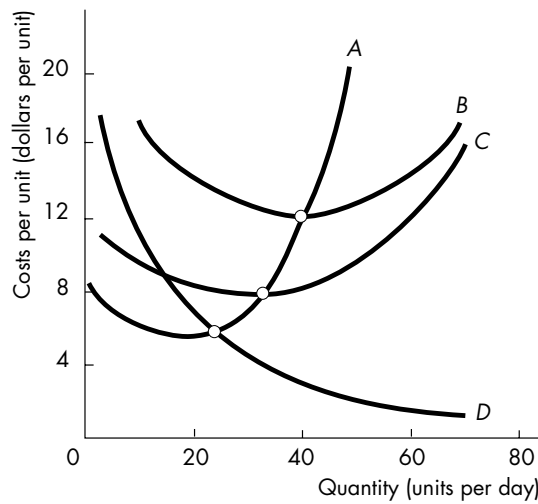
You may write on this exam question booklet, but anything you write on this will not be graded. You must hand in both this exam question booklet and the bubble sheet before leaving the exam room.

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!

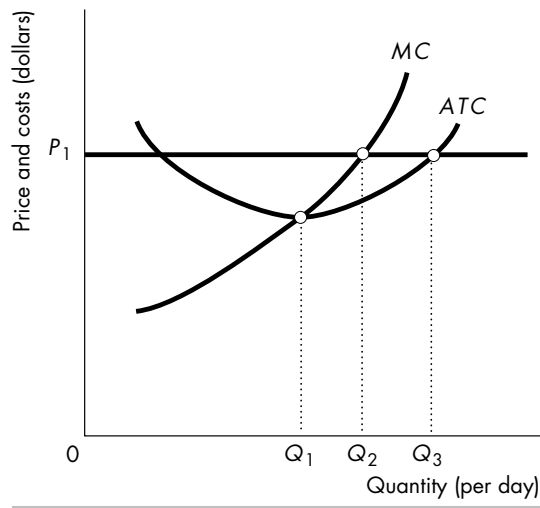
- 1) A price floor above the market equilibrium price:
- causes a surplus.
 - causes a shortage.
 - causes excess supply.
 - has no effect.
 - both a and c.
- 2) If total cost is given by $TC=10+10Q$ then:
- $AVC=10/Q+10$
 - $MC = 10$
 - $AVC = 10Q + 10$
 - both a. and b.
 - both b. and c.
- 3) A company could produce 99 units of a good at a total cost of \$316 or produce 100 units of the same good at a total cost of \$320. The marginal cost of the 100th unit
- is \$3.16.
 - is \$3.20.
 - is \$4.00
 - is \$320.
 - cannot be calculated with this information.
- 4) Suppose the market for hot dogs is perfectly competitive. If Joe's marginal benefit of consuming hot dogs is greater than the price of hot dogs,
- Joe will get consumer surplus from eating hot dogs.
 - the price of hot dogs will rise.
 - the price of hot dogs will fall.
 - there is no decreasing marginal benefit of eating hot dogs.
 - Both a. and b.



- 5) In the above figure, as output increases the distance between curves *B* and *C* decreases because
- total cost decreases as output increases.
 - average fixed cost decreases as output increases.
 - there are diminishing returns to average total cost.
 - there are increasing marginal costs as output increases.
 - both b. and d.
- 6) In the above figure, the intersection of curves *A* and *C* is
- the point at which average total cost is minimized.
 - the firm's break even point.
 - the firm's shut down point.
 - Both a. and b.
 - Both a. and c.
- 7) In general, how a sales tax is divided between buyers and sellers is determined by
- the government's choice of whom tax, buyers or sellers.
 - monetary policy.
 - the relative elasticities of supply and demand.
 - the revenue needs of government.
 - both a. and c.

- 8) Poppy Lipstick is a lipstick producer. A decrease in the (fixed) rent paid by Poppy Lipstick will
- decrease marginal cost, fixed cost, variable cost, and total cost.
 - decrease marginal cost, fixed cost, and total cost, but not variable cost.
 - decrease fixed cost, but not variable, marginal, or total cost.
 - decrease fixed and variable cost, but not marginal or total cost.
 - decrease fixed and total cost, but not marginal or variable cost.
- 9) A good with a vertical demand curve has a demand with
- unit elasticity.
 - infinite elasticity.
 - zero elasticity.
 - varying elasticity.
 - many substitutes.
- 10) For goods with a *negative* externality, the competitive market will generally produce _____ of the good. The market failure caused by the externality may be corrected by _____.
- too much; introducing a subsidy.
 - too much; introducing a tax
 - too little; introducing a subsidy.
 - too little; introducing a tax.
 - either b. or c., depending on the magnitude of the negative externality.
- 11) The absolute value of the price elasticity of demand is 5 if a 10 percent increase in the price results in a
- 2 percent decrease in quantity demanded.
 - 5 percent decrease in quantity demanded.
 - 10 percent decrease in quantity demanded.
 - 50 percent decrease in quantity demanded.
 - 100 percent decrease in quantity demanded.

- 12) The market for fish is perfectly competitive. Thus, the absolute value of the price elasticity of demand for fish faced by a *single* fishery
- a. is less than the elasticity of the demand curve faced by the fish industry as a whole.
 - b. is greater than the elasticity of the demand curve faced by the fish industry as a whole.
 - c. is sometimes greater than and sometimes less than the elasticity of the demand curve faced by the fish industry as a whole.
 - d. is infinitely elastic.
 - e. both b. and d.
- 13) A good has a perfectly inelastic supply and a downward sloping demand curve. Imposing a sales tax of \$1 on the good
- a. raises the price paid by consumers by more than \$1.00.
 - b. raises the price paid by consumers by \$1.00.
 - c. raises the price paid by consumers by less than \$1.00.
 - d. does not change the price paid by consumers.
 - e. none of the above.
- 14) Income elasticity of demand measures
- a. how often the price of a good changes when income changes.
 - b. the slope of a budget curve.
 - c. how sensitive the quantity demanded is to changes in price.
 - d. the responsiveness of the quantity demanded to changes in income.
 - e. Both b and d.



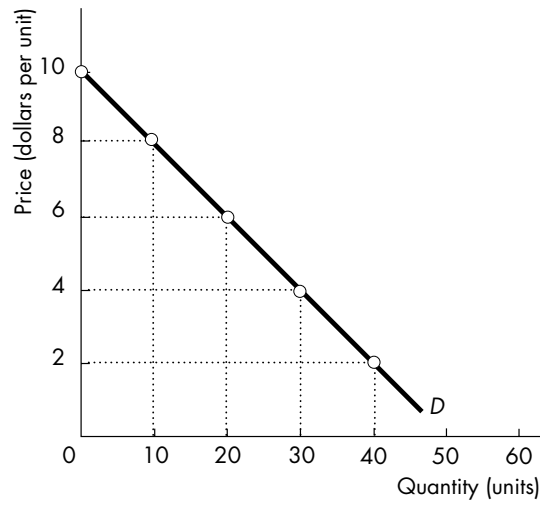
- 15) The above figure represents a single firm operating in a perfectly competitive market with an equilibrium price of P_1 . The firm
- maximizes profit by producing Q_1 , and has positive profits.
 - maximizes profit by producing Q_1 , and has negative profits.
 - maximizes profit by producing Q_2 , and has positive profits.
 - maximizes profit by producing Q_2 , and has negative profits.
 - maximizes profits by producing Q_3 , and has zero profits.
- 16) Demand for oranges is given by the equation $Q_D = 6 - 2P$. At what price is the demand curve unit elastic?
- \$3
 - \$2.50
 - \$2
 - \$1.50
 - none of the above.

17) If the demand for widgets is given by $Q_D=12-P$, and supply is given by $Q_S=2P$, and the government imposes a tax of \$3 per widget, the deadweight loss will be:

- a. \$6
- b. \$3
- c. \$4
- d. \$5
- e. \$2

18) In perfect competition, the marginal revenue of an individual firm

- a. is maximized at the unit elastic point on the demand curve.
- b. is positive but less than the price of the product.
- c. equals the price of the product.
- d. exceeds the price of the product.
- e. both a. and c.



- 19) The figure above illustrates a linear demand curve. If the price falls from \$8 to \$6,
- total revenue will increase by \$2.
 - total revenue will increase by \$40.**
 - total revenue will remain unchanged.
 - total revenue will decrease by \$2.
 - the change in total revenue cannot be determined without additional information.
- 20) An increase in subway fares will boost total expenditures on subway rides if
- the supply of subway tickets is elastic.
 - the supply of subway tickets is inelastic.
 - the demand for subway tickets is elastic.
 - the demand for subway tickets is inelastic.**
 - both a. and c.

The next three questions consider the market for cigars, where the market demand is given by $Q_D = 600 - 20P$ and the market supply is given by $Q_S = 10P$.

21) The market equilibrium price and quantity of cigars is:

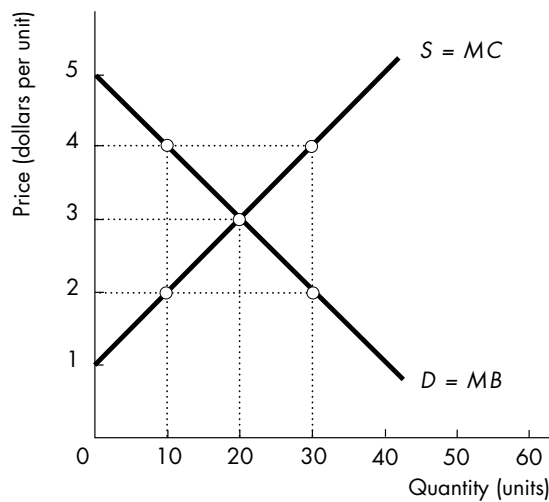
- a. $P^* = \$30, Q^* = 200$.
- b. $P^* = \$20, Q^* = 200$.
- c. $P^* = \$60, Q^* = 600$.
- d. $P^* = \$10, Q^* = 100$.
- e. $P^* = \$30, Q^* = 400$.

22) If the government imposed a price floor of \$25,

- a. a surplus of 300 cigars would result.
- b. a shortage of 300 cigars would result.
- c. a surplus of 150 cigars would result.
- d. a shortage of \$150 cigars would result.
- e. the price floor would have no effect on the market.

23) Now suppose that the government introduced a unit tax of \$9 per cigar on sellers, *instead of the price floor*. The after tax equilibrium price and quantity of cigars would be:

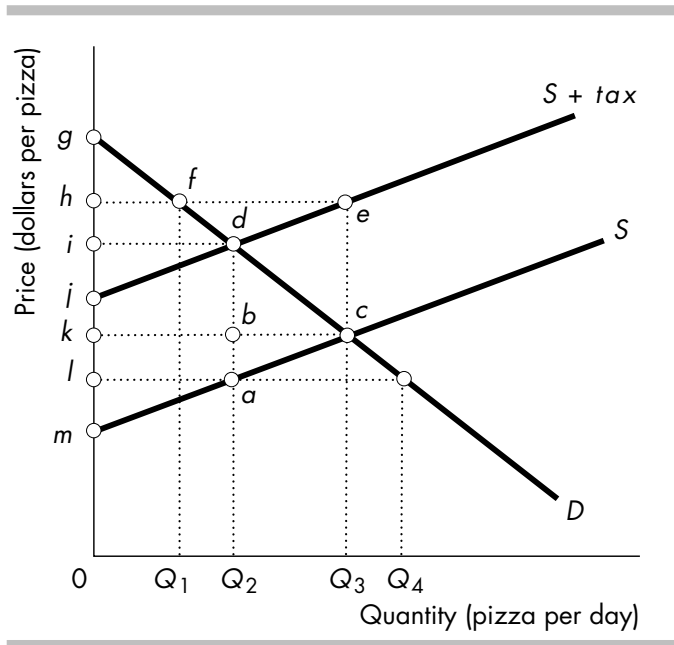
- a. $P^* = \$10, Q^* = 400$.
- b. $P^* = \$18, Q^* = 100$.
- c. $P^* = \$20, Q^* = 200$.
- d. $P^* = \$21, Q^* = 150$.
- e. $P^* = \$23, Q^* = 140$.



Use the figure above for the next two questions.

- 24) In the above figure, as output increases from 0 units to 10 units to 20 units to 30 units (for example, due to a price ceiling or price floor), the deadweight loss
- falls.
 - falls at first, then rises.
 - rises.
 - rises at first, then falls.
 - remains constant.
- 25) In the above figure, if there is a price ceiling of \$2, then the deadweight loss is _____ and the consumer surplus is _____.
- \$10; \$25.
 - \$10; \$5.
 - \$20; \$20.
 - \$20; \$5.
 - The deadweight loss and consumer surplus cannot be determined without additional information.
- 26) When demand is unit elastic
- the slope of the demand curve is -1 .
 - a shift of the supply curve causes no change in price.
 - a shift of the supply curve causes an equal shift of the demand curve.
 - total revenue is maximized.
 - both a. and c.

- 27) If its goal is to raise tax revenue while minimizing deadweight loss, the federal government is likely to impose taxes on goods that have
- a. high elasticity of demand.
 - b. low elasticity of demand.
 - c. close substitutes.
 - d. positive externalities.
 - e. both a. and c.
- 28) A perfectly competitive firm is producing at the point where its marginal cost equals its marginal revenue. If the firm increases its output, its total revenue will
- a. rise and its profits will rise.
 - b. rise and its profits will fall.
 - c. fall and its profits will rise.
 - d. fall and its profits will fall.
 - e. there is insufficient information to answer the question.
- 29) The free-rider problem is the inability of the free market to achieve the efficient level of production of
- a. rival goods.
 - b. excludable goods.
 - c. public goods.
 - d. private goods.
 - e. none of the above.



30) In the above picture, the quantity of the tax revenue paid by *consumers* is represented by:

- a. triangle *gdi*.
- b. rectangle *idbk*
- c. triangle *idj*.
- d. triangle *gfh*.
- e. rectangle *idal*.

Section	Time	Day	Location	TA
302	12:05 PM	W	2307 CHEM	Jose
304	2:25 PM	W	52 BASCOM	Tim
305	8:50 AM	R	57 BASCOM	Emily
306	11:00 AM	R	318 EDUCATION	Wei
307	2:25 PM	R	55 BASCOM	Jose
308	12:05 PM	R	310 EDUC SCI	Isil
309	11:00 AM	R	3444 ENGR HALL	Jianfeng
310	12:05 PM	F	52 BASCOM	Wei
311	12:05 PM	F	58 BASCOM	Isil
312	11:00 AM	F	1407 STERLING	Jose
313	8:50 AM	F	57 BASCOM	Kun
314	9:55 AM	F	120 INGRAHAM	Jianfeng
315	9:55 AM	F	224 INGRAHAM	Jason
316	8:50 AM	F	58 BASCOM	Wei
317	1:20 PM	F	6240 SOC SCI	Isil
318	1:20 PM	F	4308 SOC SCI	Jianfeng
328	8:50 AM	R	55 BASCOM	Tim
329	8:50 AM	R	53 BASCOM	Kun
330	9:55 AM	R	2373 CHEM	Emily
331	9:55 AM	R	301 EDUC SCI	Kun
332	1:20 PM	R	479 VAN HISE	Wei
333	1:20 PM	F	6101 SOC SCI	Tim
334	2:25 PM	F	5322 SOC SCI	Isil
335	3:30 PM	R	6104 SOC SCI	Jianfeng
336	11:00 AM	F	2323 STERLING	Jianfeng
337	8:50 AM	F	54 BASCOM	Jason
338	9:55 AM	F	222 INGRAHAM	Jose
339	9:55 AM	F	499 VAN HISE	Wei
340	11:00 AM	F	B211 VAN VLECK	Kun
341	11:00 AM	F	B131 VAN VLECK	Tim
342	12:05 PM	F	6104 SOC SCI	Kun
343	12:05 PM	F	5231 SOC SCI	Tim
344	1:20 PM	F	4322 SOC SCI	Jose
345	2:25 PM	F	4314 SOC SCI	Jason