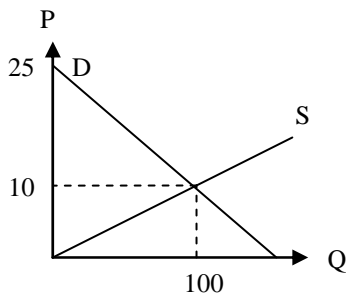


**Brigham Young University Department of Economics**  
**Economics 110 – Principles of Economics**  
**Professor Kerk Phillips – Spring Term 2007, section 1**

**Midterm #2 key**  
 5/31 – 6/2 Testing Center

This test is multiple choice, fill in your answers on the answer sheet and do not write on this exam. It is closed book and closed notes. There is no time limit and you may use calculators; either those provided by the testing center or your own as long as it is not a programmable calculator. Read all questions carefully before answering.

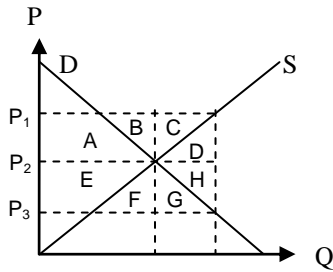
Use the following figure to answer questions 1 & 2. The supply and demand curves are straight lines. Prices are in dollars.



**The bottom quantity was supposed to be 1000, not 100**

1. The amount of producer surplus is:
  - a) \$15,000
  - b) \$10,000
  - c) \$ 7,500
  - d) **\$ 5,000 =  $(1/2) * 10 * 1000$ , but is \$500 actually, so we'll count e) also**
  - e) **none of the above.**
  
2. The amount of consumer surplus is:
  - a) \$15,000
  - b) \$10,000
  - c) **\$ 7,500 =  $(1/2) * 10 * 1000$ , but is \$750 actually, so we'll count e) also**
  - d) \$ 5,000
  - e) **none of the above.**
  
3. If demand is inelastic and supply is elastic, then a sales tax...
  - a) will place a higher burden on producers than consumers.
  - b) will place equal burdens on producers and consumers.
  - c) will cause the price received by producers to exceed the net price paid by consumers.
  - d) will generate no revenue for the government.
  - e) **none of the above.**

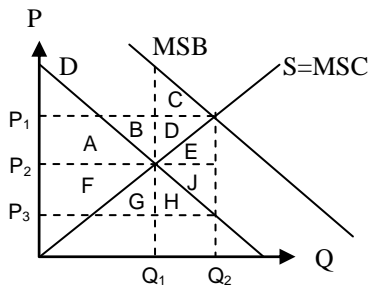
Use the following figure to answer questions 4 – 7. This figure illustrates a subsidy. The block letters are labeling sizes of areas (triangles or trapezoids).



4. The price paid by consumers after the subsidy is put in place is...
- $P_1$
  - $P_2$
  - $P_3$
  - zero
  - none of the above
5. The change in government revenue is...
- $-(A+B+E+F)$
  - $+(A+B+E+F)$
  - $+(A+B+C+D)$
  - $-(A+B+C+D+E+F+G+H)$**
  - none of the above
6. The change in consumer surplus is...
- $+(A)$
  - $+(E+F+G)$**
  - $+(A+B+C)$
  - $+(E)$
  - none of the above
7. The net loss to society or deadweight loss (ignoring the minus sign) is...
- $(A+E)$
  - $(D+H)$**
  - $(A+B+C+D)$
  - $(A+B+C+D+E+F+G+H)$
  - none of the above
8. Which of the following policies will result in an increase in total welfare in the absence of any externalities?
- the removal of an import tariff**
  - the imposition of a production subsidy
  - the imposition of a binding price ceiling
  - the removal of a non-binding price floor
  - none of the above will raise total welfare.

9. A socially efficient policy in the face of a negative production externality is...
- to subsidize production of the good
  - to subsidize consumption of the good
  - to have the government produce the good
  - to ban any production of the good
  - none of the above (tax the good)**
10. A Pareto improvement is a change in allocations where...
- at least one person is better off, and no one is worse off**
  - at least one person is worse off, and no one is better off
  - no one is better or worse off
  - some people are better off and some are worse off
  - none of the above
11. Consider the case of a smoker working in an office full of non-smokers. The Coase Theorem suggests that the negative externality associated with smoking can be efficiently addressed by...
- taxing the smoker by the appropriate amount
  - banning smoking in the office under any circumstances
  - giving the smoker the right to smoke if he wishes, and telling his coworkers to put up with it
  - auctioning off the right to smoke to the highest bidder (an individual or collection of individuals)**
  - none of the above is remotely related to the Coase Theorem
12. One example of negative externalities we discussed in class involved a dairy farm in...
- Caldwell, Idaho
  - Medford, Wisconsin
  - Strathmore, Alberta
  - Logan, Utah
  - none of the above (Mapleton, Utah)**

Use the following figure to answer questions 13 – 16. MSB stands for “marginal social benefit” and MSC stands for “marginal social cost”.



13. The figure above can best be described as illustrating...
- A positive consumption externality**
  - A negative consumption externality
  - A positive production externality
  - A negative production externality
  - none of the above

14. The socially optimal quantity in this case is an amount...
- less than  $Q_1$
  - exactly equal to  $Q_1$
  - greater than  $Q_1$  but less than  $Q_2$
  - exactly equal to  $Q_2$**
  - greater than  $Q_2$
15. The net social gain (costs not incurred and/or benefits realized) associated with moving from the market allocation to the socially optimal one is...
- +(C)
  - +(D)
  - +(C+D)**
  - +(C+D+E+J)
  - none of the above
16. The socially optimal allocation is arrived at by imposing...
- a subsidy of size  $(P_1-P_3)$**
  - a tax of size  $(P_1-P_3)$
  - a subsidy of size  $(P_1-P_2)$
  - a tax of size  $(P_2-P_3)$
  - none of the above

Use the following information for questions 17 – 19. Assume zero fixed costs.

Demand Curve		Firms'
Q	P	Total Cost
1	\$10	5
2	\$9	10
3	\$8	15
4	\$7	20
5	\$6	25
6	\$5	30
7	\$4	35
8	\$3	40
9	\$2	45
10	\$1	50

17. With perfect competition the market price is \_\_\_ and the quantity produced and consumed is \_\_\_.
- \$8, 3 units
  - \$7, 4 units
  - \$6, 5 units
  - \$5, 6 units**
  - none of the above

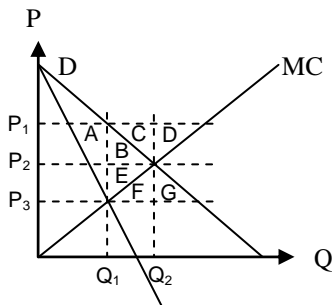
18. With a monopoly the market price is \_\_\_\_ and the quantity produced and consumed is \_\_\_\_.

- a) **\$8, 3 units**
- b) \$7, 4 units
- c) \$6, 5 units
- d) \$5, 6 units
- e) none of the above

19. Monopoly profit is...

- a) \$10
- b) \$18
- c) \$24
- d) \$28
- e) **none of the above (\$9)**

Use the following figure to answer questions 20 – 22.



20. The monopolist charges a price of...

- a) **P<sub>1</sub>**
- b) P<sub>2</sub>
- c) P<sub>3</sub>
- d) zero
- e) none of the above

21. The monopolist produces a quantity that is...

- a) less than Q<sub>1</sub>
- b) **exactly equal to Q<sub>1</sub>**
- c) greater than Q<sub>1</sub> but less than Q<sub>2</sub>
- d) exactly equal to Q<sub>2</sub>
- e) greater than Q<sub>2</sub>

22. The inefficiency associated with monopoly gives a deadweight loss (again ignoring the negative sign) equal to...

- a) (B+C)
- b) **(B+E)**
- c) (C+D)
- d) (E+F)
- e) none of the above

Use the following answers for questions 23 – 25

- a) Increasing returns to scale due to a large fixed cost have lead to a natural monopoly which has lower costs than any potential competitor would have when it started up operating on a smaller scale.
  - b) The government has put barriers in place that do not allow potential competitors to enter the market.
  - c) The firm owns a unique and scarce resource that no potential competitor can replicate.
  - d) More than one of the above reasons is an important cause
  - e) None of the above reasons are relevant
23. Why does DeBeers have a monopoly? **C**
24. Why does the Pfizer corporation have a monopoly on the sale of Lipitor? **B**
25. Why does Questar have a monopoly on the distribution of natural gas to homes in the city of Orem? **A**
26. A market structure with differentiated varieties of a good each produced by a different producer is best characterized as...
- a) monopoly
  - b) oligopoly
  - c) **monopolistic competition**
  - d) perfect competition
  - e) none of the above
27. Which statement below is true?
- a) **Perfect price discrimination leads to an outcome with the same level of social welfare as perfect competition.**
  - b) Monopolies will always enjoy profits, even in the short-run.
  - c) Cartels with large numbers of members are easier to enforce than those with small numbers, since there are more agents who can monitor and police cheaters.
  - d) More than one of the above statements is true.
  - e) None of the above statements is true.
28. Dr. Landsburg illustrates externalities with the story of Dr. Sturges and Mr. Bridgeman. Sturges was a doctor who built a new consulting office only to discover that it was very noisy due to Bridgeman's business next door which made...
- a) pickles
  - b) **candy**
  - c) horse-drawn carriages
  - d) fabric
  - e) none of the above

29. Landsburg cites David Freedman in arguing there are two technologies in the US for producing cars. One is to assemble them in Detroit using US workers & capital. The other is to...
- a) **ship grain east across the Pacific Ocean and a few months later cars arrive on other ships.**
  - b) assemble them in Ohio using US workers and foreign capital
  - c) assemble them in Tennessee using foreign workers and US capital
  - d) create them entirely in the US using only US material, as well as US labor & capital
  - e) none of the above are cited by Landsburg
30. Economic theory predicts that auctions of different types should all yield the same average revenue to sellers. However, different industries show clear preference for different types of auctions. Dr. Landsburg says the most likely explanation is...
- a) People running industry auctions don't understand economic theory
  - b) The auctions were chosen by historical accident and there is no reason to change to a different type.
  - c) **Economic theorists made unrealistic or overly simplistic assumptions.**
  - d) Auction types are set by the government essentially at random over different industries
  - e) none of the above