

**McMaster University Department of Economics
ECON 1B03
Fall 2012**

Test 2 VERSION 1

ANSWERS

**Saturday November 10, 2012
90 minutes
Instructor: H Holmes**

MULTIPLE CHOICE

Answer all questions on the scan sheet using HB pencil.
Calculators are permitted.
Hand in the scan and this sheet separately.

TOTAL MC MARKS AVAILABLE: 30

NAME: _____

STUDENT #: _____

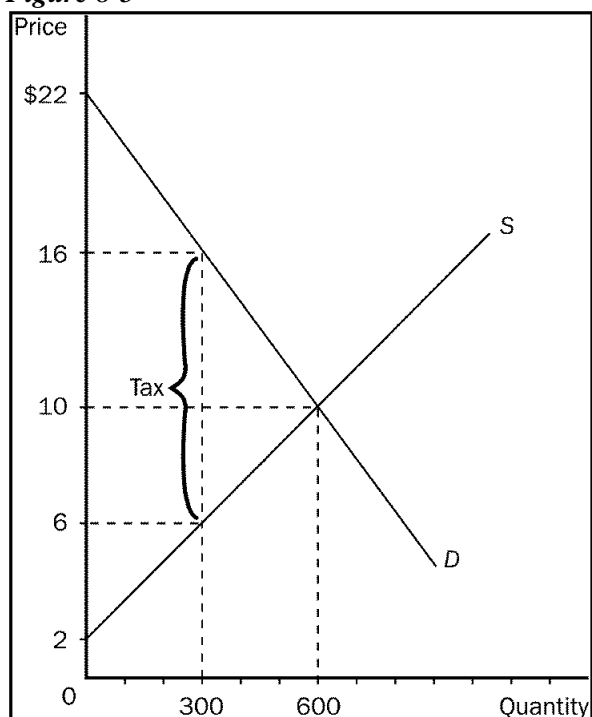
Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. If a price ceiling is a binding constraint on the market,
- the equilibrium price must be below the price ceiling.
 - the equilibrium price must be above the price ceiling.**
 - the forces of supply and demand must be in equilibrium.
 - it will have no effect on supply or demand.
- _____ 2. Suppose a tax is imposed on the buyers of a product. The burden of the tax will fall
- entirely on the buyers.
 - entirely on the sellers.
 - entirely on the government.
 - on both the buyers and the sellers.**
- _____ 3. Market demand is given as $Q^D = 300 - 6P$. Market supply is given as $Q^S = 4P$. In a perfectly competitive equilibrium, what will be the value of consumer surplus?
- \$1200**
 - \$2400
 - \$3600
 - \$6000
- _____ 4. Market demand is given as $Q^D = 300 - 6P$. Market supply is given as $Q^S = 4P$. In a perfectly competitive equilibrium, what will be the value of producer surplus?
- \$900
 - \$1800**
 - \$3600
 - \$7200
- _____ 5. Orange juice and apple juice are substitutes. Bad weather that sharply reduced the orange harvest would
- increase consumer surplus in the market for orange juice but decrease producer surplus in the market for apple juice.
 - increase consumer surplus in the market for orange juice and increase producer surplus in the market for apple juice.
 - decrease consumer surplus in the market for orange juice but increase producer surplus in the market for apple juice.**
 - decrease consumer surplus in the market for orange juice and decrease producer surplus in the market for apple juice.
- _____ 6. Market demand is given as $Q^D = 60 - P$. Market supply is given as $Q^S = 3P$. Which legally imposed price would constitute a binding price ceiling?
- \$14**
 - \$24
 - \$20
 - \$30

7. Market demand is given as $Q^D = 60 - P$. Market supply is given as $Q^S = 3P$. The government imposes a \$2 per unit tax on suppliers. Which after-tax equation is correct?
- $Q_d = 58 - P$
 - $Q_s = 3P - 2$
 - $Q_d = 60 - 2P$
 - $Q_s = 3P - 6$
8. If a tax is imposed on a market with elastic demand and inelastic supply,
- buyers will bear most of the burden of the tax.
 - sellers will bear most of the burden of the tax.
 - the burden of the tax will be shared equally between buyers and sellers.
 - it is impossible to determine how the burden of the tax will be shared.

Figure 8-5



9. Refer to Figure 8-5. When the tax is placed on this good, the quantity sold will
- stay at 600 and buyers will still pay \$10.
 - fall to 300, but buyers will still pay \$10.
 - stay at 600, but buyers will now pay \$16.
 - fall to 300, and buyers will now pay \$16.
10. Refer to Figure 8-5. What would happen to producer surplus if the tax were imposed on the buyer?
- It would fall by \$600.
 - It would fall by \$900.
 - It would fall by \$1800.
 - It would fall by \$2400.

- _____ 11. **Refer to Figure 8-5.** The deadweight loss in this market as a result of the tax would be
- \$600.
 - \$900.
 - \$1500.**
 - \$1800.
- _____ 12. If education produces positive externalities we would expect
- government to tax education.
 - government to subsidize education.**
 - people to realize the benefits and therefore cause demand for education to increase.
 - colleges to relax admission requirements.
- _____ 13. Which of the following statements about a market that is affected by a positive externality is correct?
- The optimum level of output is less than the free market level of output and the optimum price is greater than the free market price.
 - The optimum level of output is greater than the free market level of output and the optimum price is less than the free market price.
 - The optimum level of output is greater than the free market level of output and the optimum price is greater than the free market price.**
 - The optimum level of output is less than the free market level of output and the optimum price is less than the free market price.
- _____ 14. According to the Coase theorem, private parties can solve the problem of externalities if
- the cost of bargaining is small.**
 - the initial distribution of rights favors the person being adversely affected by the externality.
 - the number of parties involved is sufficiently large.
 - All of the above are correct.
- _____ 15. Dick owns a dog whose barking annoys Dick's neighbor Jane. Suppose that the benefit of owning the dog is worth \$500 to Dick and that Jane bears a cost of \$700 from the barking. Assuming Dick has the legal right to keep the dog, a possible private solution to this problem is that
- Jane pays Dick \$499 to get rid of the dog.
 - Dick pays Jane \$650 for her inconvenience.
 - Jane pays Dick \$650 to get rid of the dog.**
 - There is no private solution that would improve this situation.
- _____ 16. The marginal product of labour is equal to the
- incremental cost associated with a one unit increase in labour.
 - incremental profit associated with a one unit increase in labour.
 - increase in labour necessary to generate a one unit increase in output.
 - increase in output obtained from a one unit increase in labour.**
- _____ 17. One would expect to observe diminishing marginal product of labour when
- crowded office space reduces the productivity of new workers.**
 - workers are discouraged about the lack of help from other workers.
 - only new workers are trained in using the most productive capital.
 - union workers are told to reduce their work effort in preparation for a new round of collective bargaining talks.

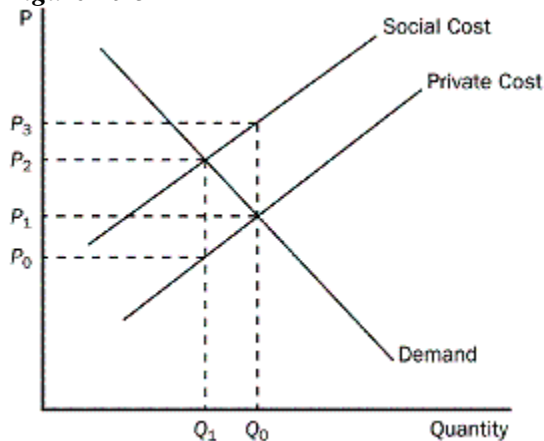
- ____ 18. Suppose a certain firm is able to produce 160 units of output per day when 15 workers are hired. The firm is able to produce 176 units of output per day when 16 workers are hired (holding other inputs fixed). Then the marginal product of the 16th worker is
- 10 units of output.
 - 11 units of output.
 - 16 units of output.**
 - 176 units of output.
- ____ 19. Diminishing marginal product suggests that the marginal
- cost of an extra worker is unchanged.
 - cost of an extra worker is less than the previous worker's marginal cost.
 - product of an extra worker is less than the previous worker's marginal product.**
 - product of an extra worker is greater than the previous worker's marginal product.
- ____ 20. Marginal cost is equal to average total cost when
- average variable cost is falling.
 - average fixed cost is rising.
 - marginal cost is at its minimum.
 - average total cost is at its minimum.**

Table 13-1

Measures of Cost for ABC Inc. Widget Factory			
Quantity of Widgets	Variable Costs	Total Costs	Fixed Costs
0			\$10
1	\$ 1		
2	\$ 3	\$13	
3	\$ 6	\$16	
4	\$10		
5		\$25	
6	\$21		\$10

- ____ 21. **Refer to Table 13-1.** The average variable cost of producing four widgets is
- \$2.00
 - \$2.50**
 - \$3.33
 - \$5.00
- ____ 22. **Refer to Table 13-1.** The marginal cost of producing the sixth widget is
- \$1.00.
 - \$3.50.
 - \$5.00.
 - \$6.00.**
- ____ 23. When a firm is operating at an efficient scale,
- average variable cost is minimized.
 - average fixed cost is minimized.
 - average total cost is minimized.**
 - None of the above are correct.

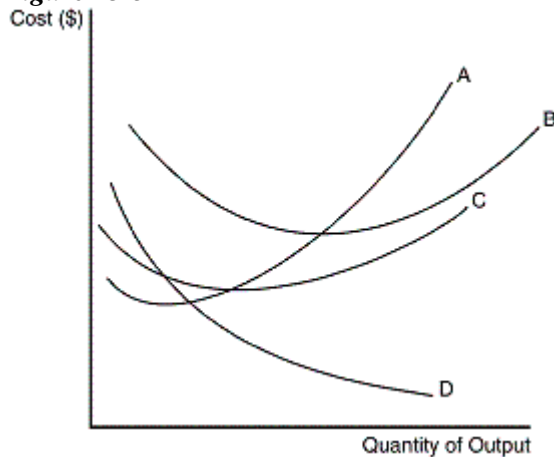
24. When is the tax incidence equivalent?
- when the tax is levied on only the seller
 - when the tax is levied only on the buyer
 - when the tax is levied on both the buyer and the seller
 - regardless of whether the tax is levied on buyers or sellers**
25. Suppose that the demand for picture frames is price elastic and the supply of picture frames is price inelastic. By what amount will a tax of \$1 per frame levied on buyers of picture frames increase the equilibrium price paid by buyers of picture frames?
- by less than \$0.50**
 - by more than \$0.50 but less than \$1.00
 - by \$1
 - It is impossible to say without more information.
26. If you pay a price exactly equal to your willingness to pay, which statement is correct?
- Your consumer surplus is negative.
 - Your willingness to pay is less than your consumer surplus.
 - Your consumer surplus is zero.**
 - You place little value on the good.
27. What is the impact of a technological advance in the production of computers?
- increase consumer surplus in the market for computers but decrease producer surplus in the market for computer software
 - increase consumer surplus in the market for computers and increase producer surplus in the market for computer software**
 - decrease consumer surplus in the market for computers but increase producer surplus in the market for computer software
 - decrease consumer surplus in the market for computers and decrease producer surplus in the market for computer software

Figure 10-5

28. Refer to Figure 10-5. Which price and quantity combination represents the social optimum?
- P_0 and Q_1
 - P_1 and Q_2
 - P_2 and Q_1**
 - P_2 and Q_2

The curves below reflect information about the average total cost, average fixed cost, average variable cost, and marginal cost for a firm.

Figure 13-5



29. Refer to Figure 13-5. When is this particular firm necessarily experiencing increasing marginal product?
- when curve A is falling
 - when curve B is falling
 - when curve C is falling
 - when curve D is falling
30. When marginal cost is rising, what must happen to average variable cost?
- It must be rising.
 - It must be falling.
 - It must be constant.
 - It could be rising or falling.
31. Professor Holmes wants to give you a bonus mark. What is the logical thing to do?
- Fill in bubble A to get the bonus mark
 - Fill in bubble C to get the bonus mark
 - Fill in bubble B to get the bonus mark
 - Fill in bubble A to get the bonus mark