

**McMaster University Department of Economics
ECON 1B03
Fall 2011**

Test 2 VERSION 3

ANSWERS

**Saturday November 12, 2011
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: 40

NAME: _____

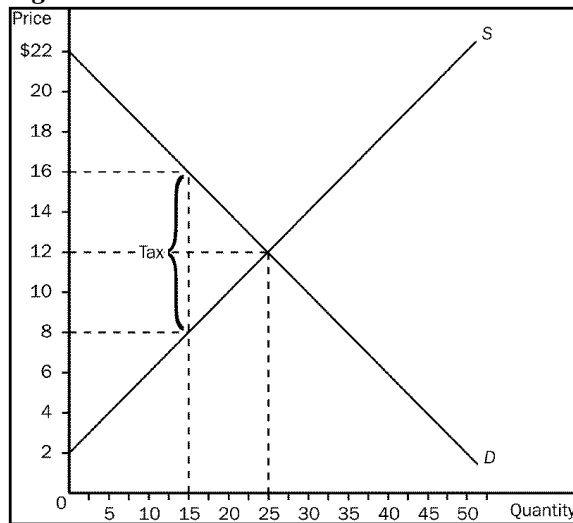
STUDENT #: _____

Multiple Choice

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

- _____ 1. A binding price ceiling causes
- a shortage, which cannot be eliminated through market adjustment.
 - a surplus, which is temporary, since market adjustment will cause price to rise.
 - a surplus, which cannot be eliminated through market adjustment.
 - a shortage, which is temporary, since market adjustment will cause price to rise.
- _____ 2. A price ceiling that is not binding will
- cause a surplus in the market.
 - have no effect on the market price.
 - cause a shortage in the market.
 - cause the market to be less efficient.
- _____ 3. A newly imposed minimum wage set above the equilibrium wage in a labor market will
- make workers earning more than the minimum wage worse off.
 - cause some workers to get a raise and some workers to lose their jobs.
 - cause the equilibrium wage in the market to rise.
 - make every worker who is earning a wage below the minimum better off.
- _____ 4. Assume that the demand and supply curves for cars are elastic. If the government imposed a \$500 tax on the buyer of each car, we can assume that the
- price of a car would not change if both curves were elastic.
 - price of a car would decrease by more than \$500.
 - equilibrium price of a car would decrease by less than \$500.
 - price of a car would decrease by exactly \$500.
- _____ 5. A tax placed on the seller of a product will
- raise equilibrium price and lower equilibrium quantity.
 - lower equilibrium price and raise equilibrium quantity.
 - raise both equilibrium price and quantity.
 - lower both equilibrium price and quantity.
- _____ 6. If a tax is imposed on a market with inelastic demand and elastic supply,
- the burden of the tax will be shared equally between buyers and sellers.
 - the burden of the tax will depend on whether it is imposed on the buyers or the sellers.
 - sellers will bear most of the burden of the tax.
 - buyers will bear most of the burden of the tax.
 - it is impossible to determine how the burden of the tax will be shared.
- _____ 7. Suppose that a tax is placed on books. If the buyer pays the majority of the tax we know that the
- supply curve is more inelastic than the demand curve.
 - government has placed the tax on the seller.
 - demand curve is more inelastic than the supply curve.
 - government has placed the tax on the buyer.

8. A tax has a deadweight loss because
- it induces the government to spend more.
 - it induces buyers to consume less and sellers to produce less.
 - the loss to buyers is greater than the loss to sellers.
 - it causes a disequilibrium in the market.
9. When evaluating the size of the deadweight loss due to a tax we know that the
- greater the elasticities of supply and demand, the greater the deadweight loss.
 - smaller the elasticities of supply and demand, the greater the deadweight loss.
 - smaller the decrease in both quantity demanded and quantity supplied, the greater the deadweight loss.
 - primary factor that determines the size of the deadweight loss in the percentage the tax is of price.
10. Total surplus with a tax is equal to
- consumer surplus and producer surplus.
 - consumer surplus minus producer surplus.
 - consumer surplus, producer surplus, and tax revenue.
 - consumer surplus, producer surplus, and total surplus.

Figure 8-6

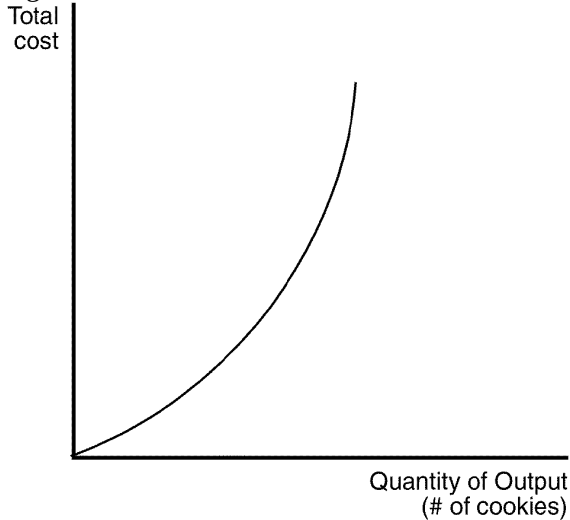
11. Refer to Figure 8-6. The total surplus with the tax levied on the seller would equal
- \$230.
 - \$210.
 - \$200.
 - \$220.
 - \$240.
12. Refer to Figure 8-6. The amount of deadweight loss in this market resulting from the levying of the tax is
- \$40.
 - \$60
 - \$30.
 - \$20.

- _____ 13. **Refer to Figure 8-6.** The benefits to the government (total tax revenue) would be
- \$100.
 - \$120.**
 - \$150.
 - \$80.
- _____ 14. Suppose that the equilibrium quantity in the market for widgets has been 200 per month. Then a tax of \$5 per widget is imposed on widgets. The price paid by buyers increases by \$2 and the after-tax price received by sellers falls by \$3. The government is able to raise \$750 per month in revenue from the tax. The deadweight loss from the tax is
- \$75.
 - \$50.
 - \$125.**
 - \$250.
- _____ 15. A tax of \$10 per unit is imposed on a certain market. The tax reduces the equilibrium quantity in the market by 200 units. The deadweight loss from the tax is
- \$500.
 - There is not enough information to answer the question.
 - \$1000.**
 - \$2000.
- _____ 16. If the supply of land is fixed, a tax on land would be paid
- only by workers.
 - entirely by the renters or users of the land.
 - entirely by the landowners.**
 - partly by landowners and partly by land users.
- _____ 17. Market demand is $Q_d = 200 - 7P$ and market supply is $Q_s = 3P$. The government imposes a tax on firms which results in a new supply curve of $Q_s = 3P - 15$. The amount of the per unit tax is
- \$5**
 - \$1.50
 - \$15
 - \$20
- _____ 18. Market demand is $Q_d = 200 - 7P$ and market supply is $Q_s = 3P$. The government imposes a tax on firms which results in a new supply curve of $Q_s = 3P - 15$. The quantity traded after the tax has been levied is
- 49.5**
 - 21.5
 - 60
 - 10.5
- _____ 19. Market demand is $Q_d = 200 - 7P$ and market supply is $Q_s = 3P$. The government imposes a tax on firms which results in a new supply curve of $Q_s = 3P - 15$. The deadweight loss due to the tax is
- \$408.38
 - \$247.50
 - \$52.50
 - \$26.25**
- _____ 20. Economic profit is equal to
- average revenue minus the average cost of producing the last unit of a good or service.
 - total revenue minus accounting profit.
 - total revenue minus the explicit cost of producing goods and services.
 - total revenue minus the opportunity cost of producing goods and services.**
 - total revenue minus the accounting cost of producing goods and services.

21. The marginal product of labour is equal to the
- incremental profit associated with a one unit increase in labour.
 - incremental cost 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.**

The figure below depicts a total cost function for a firm that produces cookies. Use the figure to answer the following questions.

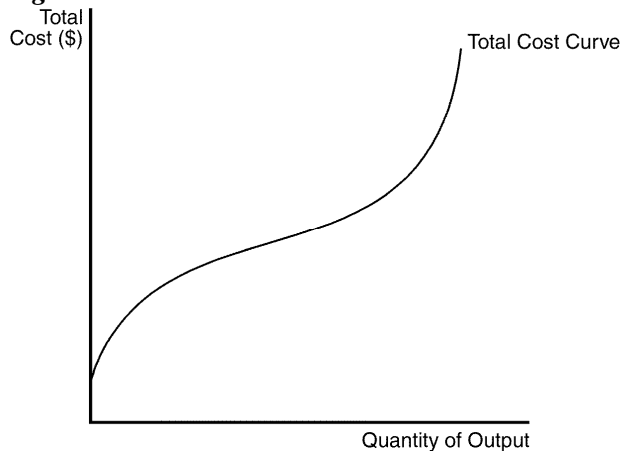
Figure 13-2



22. **Refer to Figure 13-2.** The changing slope of the total cost curve reflects
- decreasing marginal product.**
 - decreasing average total cost.
 - decreasing average variable cost.
 - increasing fixed cost.
23. When a firm's only variable input is labour, then the slope of the production function measures the
- marginal product of labour.**
 - marginal opportunity cost of labour.
 - quantity of output.
 - quantity of labour.
 - total cost.
24. The cost of producing the typical unit of output is the firm's
- marginal cost.
 - opportunity cost.
 - average total cost.**
 - variable cost.
25. If marginal cost is rising,
- marginal product must be falling.**
 - average variable cost must be falling.
 - average fixed cost must be rising.
 - marginal product must be rising.

26. The marginal cost curve crosses the average total cost curve at
- the efficient scale.
 - a point where the marginal cost curve is rising.
 - the minimum point on the average total cost curve.
 - All of the above are correct.

Figure 13-4



27. Refer to Figure 13-4. Which of the following can be inferred from the figure above?
- Marginal cost is increasing at all levels of output.
 - Marginal product is increasing at low levels of output.
 - Marginal product is decreasing at high levels of output.
- (i) and (iii)
 - (ii) and (iii)
 - (i) and (ii)
 - All of the above are correct.

Adrian's Premium Boxing Service subcontracts with a chocolate manufacturer to box premium chocolates for their mail order catalogue business. She rents a small room for \$150 a week in the downtown business district that serves as her factory. She can hire workers for \$275 a week.

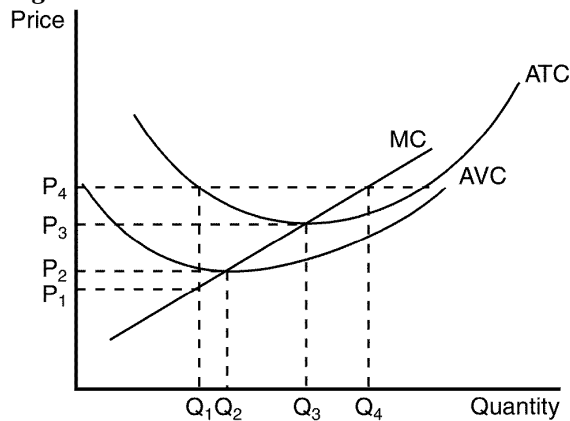
Table 13-2

Number of Workers	Chocolates Produced per Week	Marginal Product of Labor	Cost of Factory	Cost of Workers	Total Cost of Inputs
0	0				
1		330	150	275	425
2	630				
3		150		825	975
4	890				
5	950	60		1,375	
6		10			1,800

28. Refer to Table 13-2 on the previous page. What is the marginal product of the second worker?
- 110
 - 200
 - 300
 - 340
 - 260
29. Refer to Table 13-2. What is the total cost associated with making 890 boxes of premium chocolates per week?
- 1,575
 - 1,325
 - 1,600
 - 1,250
 - 1,400
30. Refer to Table 13-2. During the week of July 1st, Adrian doesn't box any chocolates. What are her costs during the week?
- 275
 - 425
 - 150
 - 0

The graph below depicts the cost structure for a firm in a competitive market. Use the graph to answer the following questions.

Figure 14-2



31. Refer to Figure 14-2. When price falls from P_3 to P_1 , the firm finds that
- it is unwilling to produce any output.
 - it should produce Q_1 units of output.
 - it should produce Q_3 units of output.
 - fixed cost is higher at a production level of Q_1 than it is at Q_3 .
32. Refer to Figure 14-2. When price rises from P_3 to P_4 , the firm finds that
- fixed costs are lower at a production level of Q_4 .
 - profit is maximized at a production level of Q_3 .
 - it can earn a positive profit by increasing production to Q_4 .
 - average revenue exceeds marginal revenue at a production level of Q_4 .

- _____ 33. **Refer to Figure 14-2.** Which of the following statements best reflects the situation faced by the firm when price falls from P_4 to P_2 ?
- Average total cost is lower than at the previous level of output so it increases production.
 - The firm will earn profit equal to $(P_4 - P_2) \times Q_2$.
 - Marginal revenue is higher than marginal cost at the previous level of output, so it increases production.
 - Marginal revenue is lower than marginal cost at the previous level of output, so it decreases production.**
- _____ 34. Which of these curves is the competitive firm's supply curve?
- the marginal cost curve above average variable cost**
 - the average total cost curve above marginal cost
 - the average fixed cost curve
 - the average variable cost curve above marginal cost
- _____ 35. To begin, a competitive firm is selling its output for \$10 per unit and it is maximizing its profit. Now, the price rises to \$14 and the firm makes whatever adjustments are necessary to maximize its profit at the now-higher price. Once the firm has adjusted, which of the following statements is correct?
- The firm's marginal revenue is lower than it was previously.
 - The firm's quantity of output is higher than it was previously.**
 - The firm's marginal cost is lower than it was previously.
 - All of the above are correct.
- _____ 36. In a competitive market that is characterized by free entry and exit,
- the price of the product will differ across firms.
 - the number of sellers in the market will steadily decrease over time.
 - all firms will operate at efficient scale in the long run.**
 - all firms will operate at efficient scale in the short run.
- _____ 37. In a perfectly competitive market, market demand is $Q_d = 5160 - 15P$ and market supply is $Q_s = 200P$. Each identical firm has $MC = .5Q$. In the short run, how much will each firm produce?
- | | |
|-------|--------|
| a. 48 | c. 100 |
| b. 24 | d. 74 |
- _____ 38. In a perfectly competitive market, market demand is $Q_d = 5160 - 15P$ and market supply is $Q_s = 200P$. Each identical firm has $ATC = 20$. Each firm is
- breaking even and the market is in long run equilibrium.
 - making economic profits and there will be entry in the long run.**
 - making economic losses and there will be exit in the long run.
 - just covering its variable costs and will continue to produce.
- _____ 39. In a perfectly competitive market, market demand is $Q_d = 5160 - 15P$ and market supply is $Q_s = 200P$. Each identical firm has $ATC = 20$. Market quantity traded in the long run is
- | | |
|---------|----------------|
| a. 4880 | c. 4940 |
| b. 4800 | d. 4860 |

- _____ 40. In a perfectly competitive market, market demand is $Q_d = 5160 - 15P$ and market supply is $Q_s = 200P$. Each identical firm has $ATC = 20$. If this is a constant cost industry, the long run supply curve will be
- a. horizontal but at an indeterminable price level without knowing marginal costs..
 - b. horizontal at $P = 20$.
 - c. upward sloping but non-linear.
 - d. upward sloping and linear.
- _____ 41. BONUS: The Economics Department is located in which building?
- a. CNH
 - b. TSH
 - c. DSB
 - d. KTH