

**University of Ottawa
Department of Economics**

ECO1104A - INTRODUCTION TO MICROECONOMICS

Supplemental Midterm Examination

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You may not consult with any written documents whatsoever, and no conversation is permitted while the examination is in progress. No programmable calculators or palm pilots are permitted. It is forbidden to look at other students' papers. There are 50 multiple choice questions, and the allotted time is one hour and 10 minutes. It may not necessarily be the case that 3 of the responses are totally wrong, and one of them is unambiguously correct. In such situations, select the best answer. Respond to the questions on the scan-tron sheet. Please grid in your name and your student number by filling in the appropriate ovals in each column. You must grid in the ovals below each digit of your student number, and below each letter of your name.

1. Complete the following sentence. When a good is taxed:
 - a. both buyers and sellers are worse off.
 - b. only buyers are worse off because they ultimately pay the majority of the tax.
 - c. only sellers are worse off because the government holds them responsible for collecting the tax.
 - d. neither buyers nor sellers are worse off since tax revenue is used to provide goods and services that would otherwise not be provided by the market.

A

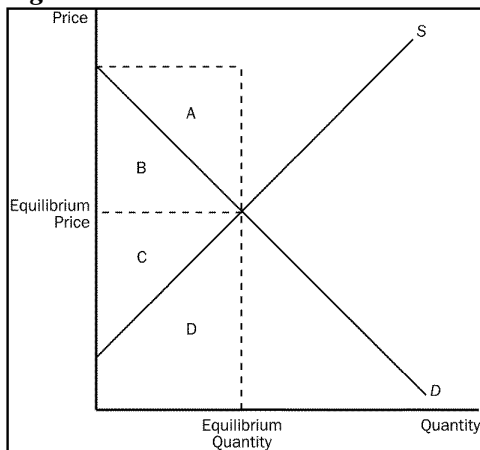
2. Economic analysis uses which of the following to judge the effect of taxes on economic welfare?
 - a. government spending
 - b. consumer and producer surplus
 - c. equilibrium price and quantity
 - d. opportunity cost

B

3. One result of a tax, whether the tax is placed on the buyer or the seller, is that the:
 - a. size of the market is reduced.
 - b. price the seller receives is higher.
 - c. supply curve will shift upward.
 - d. demand curve will shift upward.

A

Figure 8-1



4. **Refer to Figure 8-1.** Total economic surplus would be represented by area:
 - a. A + B
 - b. B + C
 - c. C + D
 - d. A + D

B

5. The benefit received by the government from a tax is measured by:
- deadweight loss.
 - tax revenue.
 - equilibrium price.
 - total surplus.

B

6. Complete the following sentence. Deadweight loss measures the:
- loss in a market to buyers and sellers that is not offset by an increase in government revenue.
 - loss in revenue to the government when buyers choose to buy less of the product.
 - loss of efficiency in a market as a result of government intervention.
 - lost revenue to businesses because of higher prices to consumers from the tax.

A

7. 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.
 - it causes a disequilibrium in the market.
 - the loss to buyers is greater than the loss to sellers.

B

8. Total surplus with a tax is equal to:
- consumer surplus and producer surplus.
 - consumer surplus minus producer surplus.
 - consumer surplus, producer surplus, and total surplus.
 - consumer surplus, producer surplus, and tax revenue.

D

9. The greater the elasticities of demand and supply the:
- smaller the deadweight loss from a tax.
 - less intrusive a tax will be on a market.
 - greater the deadweight loss from a tax.
 - more equitable the distribution of a tax between buyers and sellers.

C

10. Assume that the demand for diamonds is more elastic than the demand for gasoline. Compared to the decline in purchases from a similar percentage tax on gasoline, we would expect that a tax on diamonds will cause the quantity of diamonds purchased to decline by:
- more.
 - less.

- c. the same.
- d. neither more or less.

A

11. Complete the following sentence. The Laffer curve:
- a. relates income tax rates to total income taxes collected.
 - b. was so ridiculous that economists took it as a joke, hence the name, Laffer Curve.
 - c. relates tax rates to deadweight welfare losses.
 - d. relates government welfare payments to the birth rate.

A

12. When a good is excludable in consumption it means that:
- a. one person's use of the good diminishes another person's ability to use it.
 - b. people can be prevented from using the good.
 - c. no more than one person can use the good at the same time.
 - d. Everyone will be excluded from obtaining the good.

B

13. Goods that are rivalrous in consumption include both:
- a. natural monopolies and public goods.
 - b. public goods and common resources.
 - c. common resources and private goods.
 - d. private goods and natural monopolies.

C

14. Which of the following would be considered a private good?
- a. national defense
 - b. a public beach
 - c. local cable television service
 - d. a bottle of natural mineral water

D

15. If the local government in Richmond, BC decides to put on a public fireworks display, the display would be:
- a. excludable.
 - b. rival.
 - c. a public good.
 - d. All of the above are correct.

C

16. Complete the following sentence. Common resources are both:

- a. rival and nonexcludable.
- b. rival and excludable.
- c. nonrival and excludable.
- d. nonrival and nonexcludable.

A

17. The fish in the ocean are an example of a:

- a. common resource.
- b. public good.
- c. private good.
- d. natural monopoly.

D

18. A free-rider problem exists for any good that is NOT:

- a. rival.
- b. a private good.
- c. free.
- d. excludable.

D

19. The government provides public goods because:

- a. private markets are incapable of producing public goods.
- b. free-riders make it difficult for private markets to supply the socially optimal quantity.
- c. markets are always better off with some government oversight.
- d. external benefits will occur to private producers.

B

20. Basic research (i.e. research that is not specialized and is thought to be broadly applicable) is a public good because it:

- a. is difficult to exclude those who might benefit from it.
- b. is used to develop public goods.
- c. always benefits developed countries at the expense of developing countries.
- d. is a rival good.

A

21. Advocates of antipoverty programs claim that fighting poverty:

- a. is most successfully done by charities.
- b. is a public good.
- c. can be done efficiently by the market system.
- d. should not be done with tax dollars.

B

22. A lighthouse has long been considered an example of a public good because:
- The owner of the lighthouse is able to exclude beneficiaries from enjoying the lighthouse.
 - there is rarely another lighthouse nearby to provide competition.
 - a nearby port authority cannot avoid paying fees to the lighthouse owner.
 - all passing ships are able to enjoy the benefits of the lighthouse without paying.

D

23. A cost-benefit analysis of a highway is difficult to conduct because analysts:
- cannot estimate the explicit cost of a project that has not been completed.
 - Are unlikely to have access to costs on similar projects.
 - Are not able to consider the opportunity cost of resources.
 - do not have a price with which to judge the value of the highway.

D

24. The value and cost of goods provided in an economy are easier to determine when those goods are:
- private goods.
 - public goods.
 - common resources.
 - natural monopolies.

A

25. The government provides public goods because:
- private markets would not produce any of the good.
 - private markets would not produce the efficient quantity of the good.
 - private markets would charge too high a price for the good.
 - The government produces public goods more efficiently than private markets can.

B

26. The Tragedy of the Commons for sheep grazing on common land can be eliminated by the government doing each of the following EXCEPT:

- assigning land property rights.
- auctioning off sheep-grazing permits.
- taxation of sheep.
- subsidizing sheep flocks.

D

27. The federal government collects taxes in a number of ways. Rank the following sources of revenue from largest to the smallest.
- corporate income tax, social security tax, personal income tax, import tax
 - estate tax, corporate income tax, excise tax, individual income tax
 - corporate income tax, payroll tax, individual income tax, excise tax
 - individual income tax, payroll tax, corporate income tax, excise tax

Error in answer key – question thrown out

28. When comparing the tax burden of several major countries, Canada's tax burden is:
- a. at the top.
 - b. in the middle.
 - c. near the bottom.
 - d. dead last.

B

29. The single largest expenditure by provincial governments is on:
- a. highways.
 - b. police.
 - c. public welfare.
 - d. Health care.

D

30. The Canadian federal government spends its revenues in a number of ways. Rank the following spending categories from largest to smallest (CHST = Canadian Health and Social Transfer; EI = employment insurance).
- a. Old Age Security, CHST, EI, equalization
 - b. CHST, EI, net interest, Old Age Security
 - c. Old Age Security, CHST, national defense, federal judicial system
 - d. national defense, Old Age Security, net interest, EI

Bogus question – thrown out

31. Because the marginal tax rate rises as income rises,
- a. higher income families, in general, pay a larger percentage of their income in taxes.
 - b. lower income families, in general, pay a larger percentage of their income in taxes.
 - c. a disproportionately large share of the tax burden falls unjustly upon the poor.
 - d. higher income families pay the same percentage of their income in taxes as lower-income families.

A

32. The amount of money that a firm receives from the sale of its output is called:
- a. total gross profit.
 - b. total net profit.
 - c. total revenue.
 - d. net revenue.

C

33. An example of an explicit cost of production would be:
- a. the cost of forgone labour earnings for an entrepreneur.
 - b. the lost opportunity to invest in other capital markets when the money is invested in one's business.

- c. the cost of flour for a baker.
- d. None of the above are correct.

C

34. Economists normally assume that the goal of a firm is to:

- a. maximize its total revenue.
- b. maximize its profit.
- c. minimize its explicit costs.
- d. minimize its total cost.

B

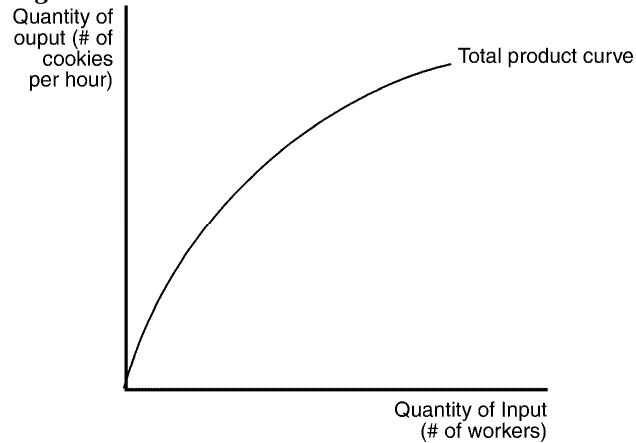
35. The marginal product of labour is equal to the:

- a. incremental cost associated with a one unit increase in labour.
- b. incremental profit associated with a one unit increase in labour.
- c. increase in labour necessary to generate a one unit increase in output.
- d. increase in output obtained from a one unit increase in labour.

D

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

Figure 13-1



36. **Refer to Figure 13-1.** As the number of workers increases,
- total output increases, but at a decreasing rate.
 - marginal product increases, but at a decreasing rate.
 - marginal product increases at an increasing rate.
 - total output decreases.

B

37. **Refer to Figure 13-1.** With regard to cookie production, the figure implies:
- diminishing marginal product of workers.
 - diminishing marginal cost of cookie production.
 - decreasing cost of cookie production.
 - increasing marginal product of workers.

A

38. An example of a fixed cost would be:
- raw materials.
 - rent paid on a factory.
 - machine maintenance.
- (ii) only
 - (i) and (ii)
 - (ii) and (iii)
 - All of the above are correct.

A

39. One assumption that distinguishes short-run cost analysis from long-run cost analysis for a profit-maximizing firm is that in the short run,
- output is not variable.
 - the number of workers used to produce the firm's product is fixed.
 - the size of the factory is fixed.
 - there are no fixed costs.

C

40. Complete the following sentence. Average total cost equals:
- change in total costs divided by quantity produced.
 - change in total costs divided by change in quantity produced.
 - (fixed costs + variable costs) divided by quantity produced.
 - (fixed costs + variable costs) divided by change in quantity produced.

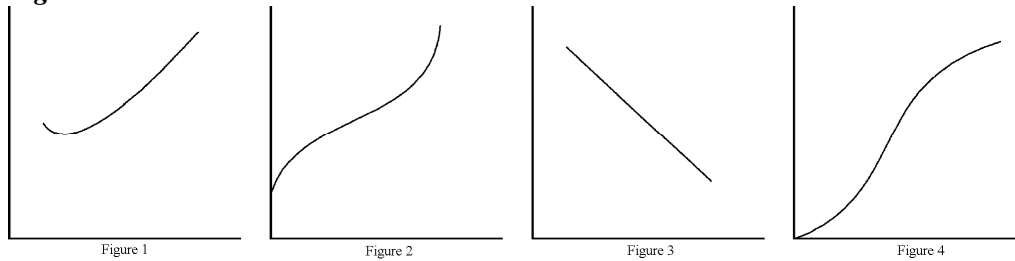
C

41. Diminishing marginal product suggests that:
- additional units of output become less costly as more output is produced.
 - marginal cost is upward sloping.
 - the firm is at full capacity.

d. All of the above are correct.

A

Figure 13-6



42. Refer to Figure 13-6. Which of the figures represents the total cost curve for a firm?
- Figure 1
 - Figure 2
 - Figure 3
 - Figure 4

B (but D is accepted as well)

43. Which of the following statements is true? Economic profit:
- will never exceed accounting profit.
 - is most often equal to accounting profit.
 - is always at least as large as accounting profit.
 - is a less complete measure of profitability than accounting profit.

A

44. When a firm is making a profit-maximizing production decision, which of the following principles of economics is likely to be most important to the firm's decision?
- The cost of something is what you give up to get it.
 - A country's standard of living depends on its ability to produce goods and services.
 - Prices rise when the government prints too much money.
 - Governments can sometimes improve market outcomes.

A

45. When adding another unit of labour leads to an increase in output that is smaller than increases in output that resulted from adding previous units of labour, we have the property of:
- diminishing labour.
 - diminishing output.
 - diminishing marginal product.
 - negative marginal product.

C

46. For a certain firm, the number of workers hired is the only variable input. When this firm's production function is illustrated on a graph,

- a. The number of workers is measured on the horizontal axis, and the quantity of output is measured on the vertical axis.
- b. The number of workers is measured on the horizontal axis, and variable cost is measured on the vertical axis.
- c. The number of workers is measured on the horizontal axis, and profit is measured on the vertical axis.
- d. total cost is measured on the horizontal axis, and the number of workers is measured on the vertical axis.

A

47. The cost of producing the typical unit of output is the firm's:

- a. average total cost.
- b. opportunity cost.
- c. variable cost.
- d. marginal cost.

A

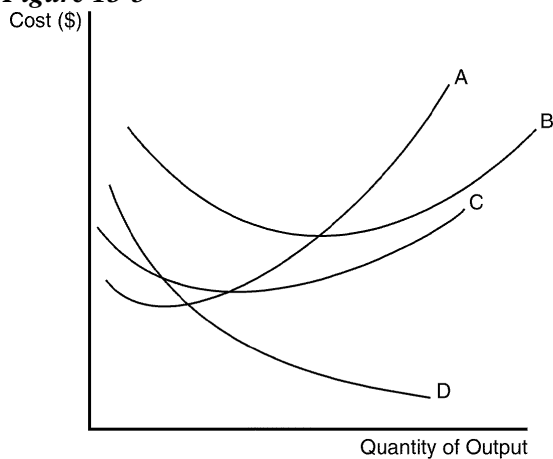
48. If marginal cost is rising as the output level increases,

- a. average variable cost must be falling.
- b. average fixed cost must be rising.
- c. marginal product must be falling.
- d. marginal product must be rising.

C

The curves below reflect information about the cost structure of a firm. Use the figure to answer the following questions.

Figure 13-5



49. **Refer to Figure 13-5.** Which of the curves is most likely to represent average total cost?

- a. A
- b. B
- c. C
- d. D

B

50. Economies of scale occur when:
- a. long-run average total costs rise as output increases.
 - b. long-run average total costs fall as output increases.
 - c. average fixed costs are falling.
 - d. average fixed costs are constant.

B