

Economics 101
Professor Brown
April 1, 2004

Midterm 2
Version 11

Name: _____

Section #: _____

TA: _____

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

Please do not open this exam until instructed to do so. All 30 questions are multiple-choice. Choose the best answer for each question, and fill in the corresponding circle 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 here 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. Which of the following can prevent markets from reaching efficiency?
- I. price ceiling
 - II. increasing marginal cost
 - III. external costs of production
- A) I only.
B) I and II.
C) II and III.
D) I and III.
2. The demand for aluminum is given by $P = 100 - 2Q_D$. The private cost curve of the aluminum producer is $P = 3Q_S$. The social cost of each unit of aluminum produced is 25. The private equilibrium quantity of aluminum exchanged is _____. The socially optimal quantity of aluminum produced and sold in the market is _____.
- A) 20, 15.
B) 10, 20.
C) 20, 20.
D) 20, 12.
3.
Suppose the government would like to achieve the socially optimal quantity exchanged in the above market for aluminum. It could
- A) impose a Pigouvian tax on aluminum suppliers of \$15 per unit sold.
B) impose a Pigouvian tax on aluminum suppliers of \$20 per unit sold.
C) impose a price ceiling on aluminum of \$70 per unit.
D) impose an import quota on aluminum of 30 units.
4.
The decrease in total surplus that results from an inefficient level of production is called the
- A) external cost.
B) external benefit.
C) deadweight loss.
D) big tradeoff.

5.

The sum of consumer and producer surplus in a perfectly competitive market with no external costs or benefits associated with the market good is maximized

- A) at the Q at which supply and demand intersect.
- B) at the Q at which the vertical distance between supply and demand is maximized.
- C) where the supply curve lies above the demand curve.
- D) where the demand curve lies above the supply curve.

BUYER	WILLINGNESS TO PAY
MIKE	\$50.00
SANDY	\$30.00
JONATHAN	\$20.00
HALEY	\$10.00

6.

If the table represents the willingness to pay of 4 buyers and the price of the product is \$15, then what is the total surplus enjoyed by consumers in this market?

- A) \$110.
- B) \$80.
- C) \$55.
- D) \$35.

	Price elasticity of supply	Price elasticity of demand
Hamburgers	1.2	1.8
French fries	1.4	1.4
Pizza	2.0	1.2
Ice cream	1.5	1.6

7.

You are in the business of producing and selling hamburgers, french fries, pizza, and ice cream. The mayor plans to impose a tax on one of these products. Based on the elasticities in the above table, as a profit-minded business person who seeks to avoid taxes whenever possible, which good would you *most* prefer to have taxed?

- A) Hamburgers
- B) Pizza
- C) French Fries
- D) Ice Cream

Answer B

8.

Goods that are excludable 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.

9.

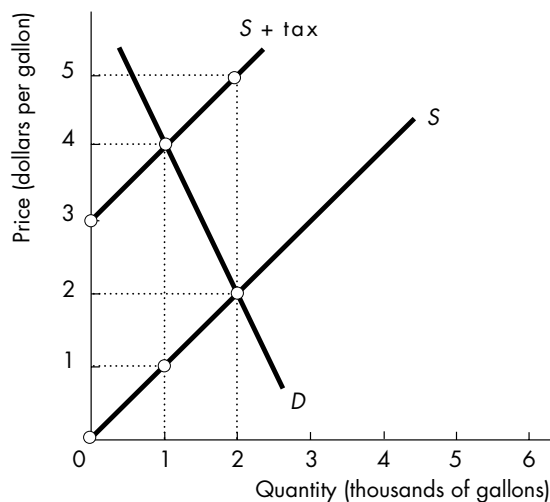
The government is deciding whether to tax either Good A or Good B. The equilibrium quantity of both is currently the same, but the elasticity of demand for Good A is 0.8 while the elasticity of demand for Good B is 1.5. In order to generate the most tax revenues, the government should impose the tax on ____ because its demand is ____.

- A) Good A; less elastic
- B) Good A; more elastic
- C) Good B; less elastic
- D) Good B; more elastic

10.

If a tax is imposed on suppliers in a market in which the demand is perfectly inelastic, then

- A) the consumer surplus and the producer surplus both decrease.
- B) the consumer surplus is equal to the producer surplus.
- C) there is an increase in the deadweight loss.
- D) there is no deadweight loss.



11.

The above figure shows the market for anti-freeze. The government imposes a sales tax on anti-freeze.

Using the figure, what is the amount of the tax?

- A) \$1 per gallon.
- B) \$2 per gallon.
- C) \$3 per gallon.
- D) \$4 per gallon.

12.

The above figure shows the market for anti-freeze. The government imposes a sales tax on anti-freeze.

How much tax revenue does the government raise from this tax?

- A) \$2,000.
- B) \$3,000.
- C) \$4,000.
- D) \$6,000.

13.

The private market does a poor job of providing national defense because

- A) it is impossible to prevent any single person from enjoying the benefit of national defense.
- B) the fixed cost of national defense is too high.
- C) the necessary resources for national defense are not available in the private sector.
- D) All of the above are correct.

14.

An externality is best defined as

- A) a person uninvolved with a transaction.
- B) a person involved with a transaction who benefits from the transaction.
- C) a person involved with a transaction who is adversely affected by the transaction.
- D) an effect of a transaction on a person uninvolved with the transaction.

15.

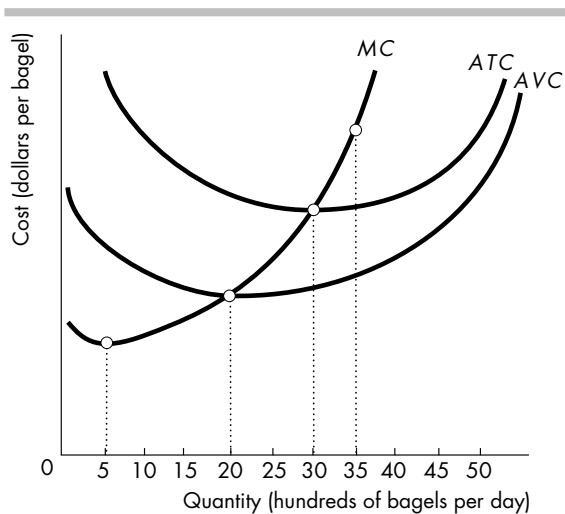
For a good to be nonrival, which of the following must be true?

- A) One person's consumption of that good does not decrease another person's consumption of that good.
- B) A person cannot be prevented from consuming that good even if he or she did not pay for it.
- C) A person is willing to pay any price to ensure that the product is available.
- D) A person is not willing to pay for the good because even without paying for it, the person can consume the good anyway.

16.

If it possible to prevent a person from enjoying the benefits of a good unless the person pays for the good, the good is

- A) rival.
- B) excludable.
- C) pure.
- D) free.



17.

The above figure shows the costs at Barney's Bagel Bakery. At which of the following levels of daily output will the *AFC* be the lowest?

- A) At 2000 bagels.
- B) At 3000 bagels.
- C) At 3500 bagels.
- D) None of the above.

18.

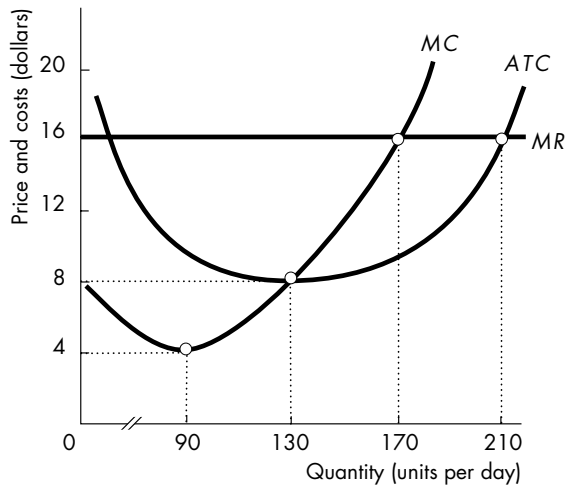
The above figure shows the costs at Barney's Bagel Bakery. After 3000 bagels are produced each day, the *ATC* curve starts to slope upward because

- A) the *MC* curve slopes upward.
- B) the *MC* exceeds the *ATC*.
- C) Both of the above.
- D) Neither of the above.

19.

Which of the following is *always* true for a profit maximizing perfectly competitive firm in short-run equilibrium?

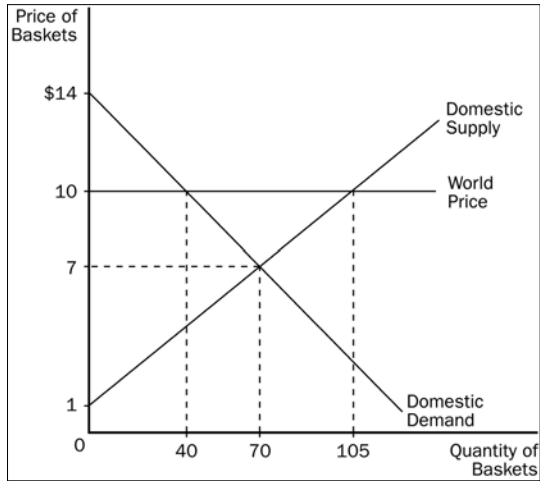
- A) $P = ATC$
- B) $ATC = MC$
- C) $P = AVC$
- D) $MC = MR$



20.

The figure above depicts the marginal revenue and costs of a perfectly competitive firm. The firm's profit is maximized when the firm produces

- A) 90 units of output.
- B) 130 units of output.
- C) 170 units of output.
- D) 210 units of output.



21.

According to the graph, without trade, consumer surplus would be

- A) \$210.
- B) \$245.
- C) \$455.
- D) \$490.

22.

According to the graph, with free trade, this country would

- A) import 70 baskets.
- B) export 65 baskets.
- C) export 35 baskets.
- D) import 40 baskets.

23.

Suppose a book printer has total production costs given by the equation $TC=100+5Q$, where Q is output, measured in copies of the book being printed. What is the difference between MC and AVC (as a function of Q)?

- A) 5.
- B) $100/Q$.
- C) 0.
- D) undefined.

24.

What is the efficient scale quantity of books for the book printer?

- A) 0.
- B) arbitrarily large.
- C) the quantity at which MC meets ATC .
- D) B and C.

25.

Which of the following is NOT an assumption of perfect competition?

- A) Firms compete by making their product different from products produced by other firms.
- B) There are no restrictions on entry into the industry.
- C) Established firms have no advantage over new firms.
- D) Sellers and buyers are well informed about prices.

26.

If a country allows trade and the domestic price of a good is higher than the world price,

- A) the country will become an exporter of the good.
- B) the country will become an importer of the good.
- C) the country will neither export nor import the good.
- D) additional information about demand is needed to determine whether the country will export or import the good.

Quantity (pounds of cookies)	Total revenue (dollars)	Total cost, (dollars)
1	15	13
2	30	24
3	45	39
4	60	58
5	75	81

27.

The table above gives the total revenue and total cost for a perfectly competitive firm producing chocolate chip cookies. If the firm is producing 1 pound of cookies, to maximize its profit it will

- A) increase its output.
- B) decrease its output.
- C) continue producing 1 pound of cookies.
- D) shut down.

28.

When a country allows trade and becomes an importer of a good,

- A) both domestic producers and domestic consumers are better off.
- B) domestic producers are better off, and domestic consumers are worse off.
- C) domestic producers are worse off, and domestic consumers are better off.
- D) both domestic producers and domestic consumers are worse off.

29. The largest source of U.S. federal government revenue is

- A) the federal payroll tax.
- B) the federal corporate tax.
- C) sales and excise taxes.
- D) the federal income tax.

30. Under a progressive income tax system,

- A) the amount of tax paid increases with the taxpayer's income.
- B) taxpayers with larger incomes pay larger shares of their incomes in taxes.
- C) A and B.
- D) all taxpayers pay the same share of their incomes in tax.