ECON 110: Introductory Economics

Exam 2, Section 10, FALL 2026

Prof. Remy Beauregard
Department of Economics
University of San Francisco

This exam covers Chapters 10, 11, 14, 15, and 16. It is worth 70 points.

Instructions

- This exam consists of 10 true or false questions, 15 multiple choice questions, 1 graphing question, and 1 short essay question.
- You will have a maximum of 60 minutes to complete this exam. No additional time may be taken without prior accommodation.
- Show all work to receive full credit.
- Calculators are permitted.
- For questions requiring computation, express your final answer with 2 decimal places.
- Every graph you draw must have both axes labeled and every curve labeled.
- Scratch paper is provided at the end of this exam. If you plan to use this extra page for your final answers, please write your name and student ID at the top so it is not lost.

Name:

Student ID:

Part I: True or False [2 points each, 20 points total]

Circle **T** if the statement is true and **F** if the statement is false. You do not need to explain your answer.

TF 1

T / F When market activity generates a negative externality, the level of output in the market equilibrium is lower than the socially optimal level.

TF 2

T / F A congestion toll imposed on a highway driver to force the driver to take into account the increase in travel time she imposes on all other drivers is an example of internalizing the externality.

TF 3

T / F One person's use of a common resource does not reduce the enjoyment other people receive from that resource.

TF 4

T / F One possible solution to the problem of protecting a common resource is to convert that resource to a private good.

TF 5

T / F If a firm produces nothing, it still incurs its fixed costs.

TF 6

T / F When average total cost is above marginal cost, average total cost is rising.

TF 7

T / F A firm will shut down in the short run if revenue is not sufficient to cover its variable costs of production.

TF 8

T / F For a firm operating in a perfectly competitive industry, total revenue, marginal revenue, and average revenue are all equal.

TF 9

T / F The fundamental cause of monopoly is barriers to entry.

TF 10

T / F A monopolist earns higher profits by charging a single price than by practicing price discrimination.

Part II: Multiple Choice [2 points each, 30 points total]

Circle the single best answer for each question. You do not need to explain your answer.

MC 1

When negative externalities are present in a market,

a) private costs will be greater than social costs.

b) social costs will be greater than private costs.

c) only government regulation will solve the problem.

d) the market will not be able to generate an equilibrium.

MC 2

Suppose that plastic packaging creates a negative externality equal to $2 per unit due to environmental damage. What is the relationship between the equilibrium quantity of plastic packaging and the socially optimal quantity?

a) They are equal.

b) The equilibrium quantity is greater than the socially optimal quantity.

c) The equilibrium quantity is less than the socially optimal quantity.

d) There is not enough information to answer the question.

MC 3

Which of the following statements is **not** correct?

a) Government policies may improve the market's allocation of resources when negative externalities are present.

b) Government policies may improve the market's allocation of resources when positive externalities are present.

c) A positive externality is an example of a market failure.

d) Without government intervention, the market will tend to undersupply products that produce negative externalities.

MC 4

Goods that are rival in consumption but not excludable would be considered

a) common resources.

b) club goods.

c) public goods.

d) private goods.

MC 5

Both public goods and common resources are

a) rival in consumption.

b) nonrival in consumption.

c) excludable.

d) nonexcludable.

MC 6

A city street is

a) always a public good, whether or not it is congested.

b) a public good when it is congested, but a common resource when it is not congested.

c) a common resource when it is congested, but a public good when it is not congested.

d) always a common resource, whether or not it is congested.

MC 7

Bubba is a shrimp fisherman who could earn $5,000 as a fishing tour guide. Instead, he is a full-time shrimp fisherman. In calculating the economic profit of his shrimp business, the $5,000 that Bubba gave up is counted as part of the shrimp business's

a) total revenue.

b) explicit costs.

c) implicit costs.

d) marginal costs.

MC 8

Chloe's Car Wash has average variable costs of $2 and average fixed costs of $3 when it produces 100 car washes. The firm's total cost is

a) $100.

b) $200.

c) $300.

d) $500.

MC 9

Suppose that for a particular firm the only variable input into the production process is labor, and that output equals zero when no workers are hired. Suppose further that the average total cost when 5 units of output are produced is $30, and the marginal cost of the sixth unit of output is $60. What is the average total cost when 6 units are produced?

a) $10

b) $25

c) $30

d) $35

MC 10

If a firm in a perfectly competitive market triples the quantity of output sold, then total revenue will

a) more than triple.

b) less than triple.

c) exactly triple.

d) be reduced by one third.

MC 11

Suppose a firm in a competitive market earned $1,000 in total revenue and had a marginal revenue of $10 for the last unit produced and sold. What is the average revenue per unit, and how many units were sold?

a) $5 and 50 units

b) $5 and 100 units

c) $10 and 50 units

d) $10 and 100 units

MC 12

Whenever a perfectly competitive firm chooses to change its level of output, its marginal revenue

a) increases if marginal revenue is below average total cost and decreases if marginal revenue is above average total cost.

b) does not change.

c) always increases.

d) always decreases.

MC 13

A natural monopoly occurs when

a) there are economies of scale over the relevant range of output.

b) the product is sold in its natural state, such as water or diamonds.

c) the firm is characterized by a rising marginal cost curve.

d) production requires the use of free natural resources, such as water or air.

MC 14

Which of the following is **not** an example of a barrier to entry?

a) A mining company owns a unique plot of land in Tanzania, under which lies the only large deposit of tanzanite in the world.

b) A pharmaceutical company obtains a patent for a specific high blood pressure medication.

c) A musician obtains a copyright for an original song.

d) An entrepreneur opens a popular new restaurant.

MC 15

Suppose most people regard emeralds, rubies, and sapphires as close substitutes for diamonds. Then DeBeers, a large diamond company, has

a) less incentive to advertise than it would otherwise have.

b) less market power than it would otherwise have.

c) more control over the price of diamonds than it would otherwise have.

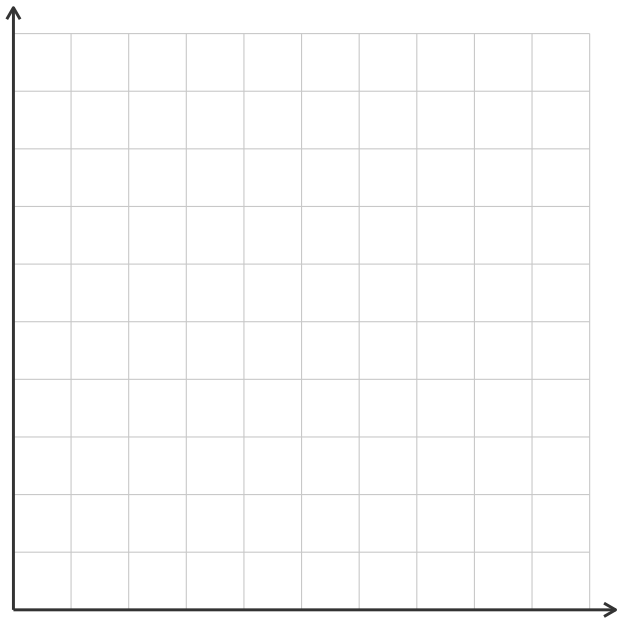
d) higher profits than it would otherwise have.

Part III: Graphing [12 points total]

Question 1: Monopoly Pricing [12 points]

A monopolist is the sole producer of a patented water filter. The firm faces the demand curve $P = 100 - Q$, where P is the price in dollars and Q is the quantity in thousands of units. Its marginal revenue curve is $MR = 100 - 2Q$. The firm produces at a constant marginal cost of \$20 per unit and has no fixed costs.

a) On the axes below, draw and label the demand curve, the marginal revenue curve, and the marginal cost curve. [3 points]



b) Find the profit-maximizing quantity and the price the monopolist charges. Mark both on your graph. [3 points]

c) Compute the monopolist's profit. [2 points]

d) What quantity and price would prevail if this market were instead perfectly competitive? [2 points]

e) On your graph, shade and label the deadweight loss of the monopoly. Compute its area. [2 points]

Part IV: Short Essay [8 points total]

Question 2: The Firm's Shutdown Decision [8 points]

Cascade Cabinets operates in a perfectly competitive market. At its current output of 500 cabinets, the firm's average total cost is \$90 per cabinet, its average variable cost is \$65 per cabinet, and the market price is \$75 per cabinet.

a) Is the firm earning a profit or a loss? Compute the amount. [3 points]

b) Should the firm shut down in the short run? Justify your answer with a comparison of the losses under each option. [3 points]

c) If this situation persists into the long run, what will the firm do, and what will happen to the market price? Explain. [2 points]

END OF EXAM

Scratch Paper

You may remove this sheet and discard it after the exam. If you use it for any of your final answers, write your name and student ID at the top of the page so that it is not lost.

Scratch Paper