Microeconomics, Module 1: “Supply, Demand, and Equilibrium”

Illustrative Test Questions

(The attached PDF file has better formatting.)

Question 1.1: Elastic (Horizontal) Demand Curve

Suppose the demand curve for books purchased on the Internet is horizontal (i.e., demand is perfectly elastic). If the government imposes a sales tax on books purchased this way, which of the following is most likely?

A. The equilibrium quantity and pre-tax price both decline. The sellers and buyers each pay a portion of the tax.
B. The equilibrium quantity will decline, and the equilibrium pre-tax price will rise. The sellers pay the tax.
C. The equilibrium quantity will decline, and the equilibrium pre-tax price falls by the amount of the tax. The sellers pay the tax.
D. The equilibrium quantity will not be affected, and the equilibrium pre-tax price will rise. The buyers pay the tax.
E. The equilibrium quantity will decline, and the equilibrium pre-tax price will rise. The buyers pay the tax.

Answer 1.1: C

A perfectly elastic demand curve is horizontal. A sales tax is paid directly by consumers to the government, so the demand curve moves down by the amount of the tax. The equilibrium quantity decreases, and the equilibrium price decreases by the amount of the tax. The seller is worse off by exactly the amount of the tax. The economic incidence is entirely on the seller.

Question 1.2: Cameras and Film, Part 1

Assume the markets for cameras and film have one type of camera and one type of film. A decline in the price of cameras causes

A. An increase in the demand for film.
B. An increase in the quantity demanded for film.
C. A decrease in the demand for film.
D. A decrease in the quantity demanded for film.
E. No change in the quantity demanded for film.

Answer 1.2: A

The demand for film is the demand curve (the relation between price and quantity demanded); the quantity demanded is one point on the curve. When the price of cameras declines, consumers buy more cameras, and they want more film even at the same price for film. This is an increase in the entire demand curve for film.

Question 1.3: Cameras and Film, Part 2

A decline in the price of cameras causes

A. An increase in the supply of film.
B. An increase in the quantity supplied of film.
C. A decrease in the supply of film.
D. A decrease in the quantity supplied of film.
E. No change in the quantity supplied of film.

Answer 1.3: B

[NEAS: Since the demand for film increases, their price increases. Consumers pay more for film, so the *quantity supplied* of film increases.

The marginal cost of producing film does not change, so the supply of film does not change. But consumer are willing to pay more for film, so the quantity supplied increases.]

Question 1.4: Plane or Bus

Suppose consumers can travel by plane or bus from Boston to Chicago. The plane takes 2 hours; the bus takes two days. If they must travel because of an *emergency*, the air fare does not much affect their decisions to fly instead of going by bus. In this scenario

A. The equilibrium price of air travel is high.
B. The demand curve for air travel is upward sloping.
C. The supply curve for air travel is downward sloping.
D. The demand curve for air travel is relatively flat.
E. The demand curve for air travel is relatively steep.

Answer 1.4: E

Consumers have a demand curve; the producers (the airlines) have a supply curve. If the price does not affect how much consumers buy of the good (air travel), the demand curve is steep.

Question: If consumers must travel because of an emergency, won't the equilibrium price be high?

Answer: If the marginal cost (supply curve) is low, the point of intersection has a low price. Changing the slope of the demand curve does not necessarily change the intersection. For long-run competitive equilibrium, the equilibrium price depends on the suppliers costs, no the slope of the demand curve. Only if the suppliers have a monopoly does the slope of the demand curve affect the equilibrium price.

Question 1.5: Bidding Up and Down

The market price of a loaf of bread in Boston is $1.49, consumers want to buy 12,000 loaves, and stores want to sell 20,000 loaves. In this scenario

A. Consumers will bid up the market price.
B. Sellers will bid down the market price.
C. Demand will rise to bring the market to equilibrium.
D. Supply will fall to bring the market to equilibrium.
E. None of A, B, C, or D is true.

Answer 1.5: B

If the price remains $1.49, consumer buy 12,000 loaves of bread and stores have 8,000 loaves unsold and getting stale on the shelves. So store bid down the price, until consumers want to buy the number of loaves that stores want to sell.

Question 1.6: Market Price and Equilibrium Price

If the market price of a loaf of bread in Boston is $1.49 and the equilibrium price is $1.75

A. Suppliers can sell all they produce but consumers can not buy all they demand.
B. Suppliers can not sell all they produce but consumers can buy all they demand.

C. Suppliers can sell all they produce and consumers can buy all they demand.
D. Suppliers can not sell all they produce but consumers can not buy all they demand.
E. By definition, suppliers and consumers sell and buy exactly what they demand.

Answer 1.6: A

If the market price of a loaf of bread were $1.75, consumers would want to buy the same quantity that suppliers want to sell. Since the market price is lower, consumers want to buy more (law of demand) and suppliers want to sell less (law of supply).

Question 1.7: Supply and Demand for Afghan Poppy

Suppose the price of Afghan poppy declines, and the quantity of Afghan poppy sold on the black market declines as well. We may infer that

A. Afghan poppy does not have a demand curve since it does not trade in a free market.
B. The supply of Afghan poppy must have fallen.
C. The demand for Afghan poppy must have fallen.
D. The supply of Afghan poppy must have risen.
E. The demand for Afghan poppy must have risen.

Answer 1.7: C

Know the four scenarios for the final exam:

- If the demand for Afghan poppy falls, consumers buy less and pay less.
- If the demand for Afghan poppy rises, consumers buy more and pay more.
- If the supply of Afghan poppy rises, suppliers produce more and sell for less.
- If the supply of Afghan poppy falls, suppliers produce less and sell for more.

We put these scenarios into a two by two matrix:

	Price Increases	*Price Falls*
Quantity Increases	Demand Rises	Supply Rises
Quantity Falls	Supply Falls	Demand Falls

These scenarios assume that “all else is equal.” When we say demand falls, we mean that supply stays the same, the quality of the good stays the same, and so forth.

Question 1.8: Supply and Demand of Wine

If the demand for wine increases and the supply of wine decreases

A. The quantity of wine traded decreases; the price may increase or decrease.
B. The quantity of wine traded increases; the price may increase or decrease
C. The price of wine increases; the quantity may increase or decrease.
D. The price of wine increases and quantity decreases.
E. By definition, a rise in demand can not occur along with a fall in supply.

Answer 1.8: C

Know the four scenarios for the final exam:

- If demand rises and supply rises, quantity increases but price may rise or fall.

- If demand falls and supply falls, quantity decreases but price may rise or fall.
- If demand rises and supply falls, price increases but quantity may rise or fall.
- If demand falls and supply rises, price decreases but quantity may rise or fall.

We put these scenarios into a two by two matrix:

	Demand Rises	*Demand Falls*
Supply Rises	Quantity Increases	Price Decreases
Supply Falls	Price Increases	Quantity Decreases

Question 1.9: Sales Tax vs Excise Tax

Suppose that Boston consumers pay a $2.00 tax per pound of tea. For tax relief, the Boston city council reduces the sales tax to $1.00 per pound of tea. To maintain the same tax revenues, a $1.00 excise tax per pound of tea is levied on suppliers. What is the net economic effect of the tax changes on buyers and sellers?

A. If supply curve is steeper than the demand curve, consumer lose and suppliers gain.
B. If supply curve is steeper than the demand curve, consumer gain and suppliers lose.
C. If demand curve is steeper than the supply curve, consumer lose and suppliers gain.
D. If demand curve is steeper than the supply curve, consumer gain and suppliers lose.
E. Neither consumers nor suppliers of tea are gain or lose.

Answer 1.9: E

The choice of an excise tax vs a sales tax does not affect the economic incidence of the tax.

Question 1.10: Economic Incidence vs Legal Incidence

What does Landsburg mean by “the economic incidence of a tax is independent of its legal incidence?”

A. The economic incidence and legal incidence of a tax are the same.
B. The economic incidence of a tax is the same no matter who bears the legal incidence of the tax.
C. Consumers and suppliers equally share the economic burden of the tax, regardless of the legal incidence.
D. Since suppliers can pass on a tax to consumers, the economic incidence of a tax falls on consumers.
E. In a competitive market, suppliers bear the cost of the tax, not consumers.

Answer 1.10: B

The burden of the tax is not necessarily equal between suppliers and consumers; the relative burdens depend on the slopes of the supply and demand curves.

Question 1.11: Law of Demand

All but which of the following are true regarding the law of demand?

A. The law of demand says that when price rises, the quantity demanded falls.
B. The law of demand implies that demand curves slope downward.
C. A change in the price of wine leads to a change in the demand for wine.
D. The law of demand implies that goods have decreasing marginal utility.
E. All of A, B, C, and D are true.

Answer 1.11: C

A change in the price of wine leads to a change in the quantity demanded of wine; the demand for wine – that is, the demand curve for wine – stays the same.

Jacob: Choice E in many of these questions is *all of A, B, C, and D are true* or *none of A, B, C, or D is true*. Is this the type of question we should expect on the final exam?

Rachel: The final exam gives five distinct choices; the exam questions do not say "all of the above" or "none of the above."

Question 1.12: Laws of Supply and Demand

All but which of the following are true regarding supply and demand?

A. If demand falls, the demand curve shifts downwards.
B. A sales tax is paid by the seller (supplier, producer) to the government.
C. The law of supply says that as price rises, producers supply more of the good.
D. The law of supply implies that supply curves are upward sloping.
E. All of A, B, C, and D are true.

Answer 1.12: B

In Landsburg's textbook, a sales tax is paid by the consumer to the government.

Question 1.13: Sales and Excise Taxes

All but which of the following are true regarding sales and excise taxes?

A. An excise tax is paid to the government by sellers.
B. The economic incidence of a sales tax is usually shared between the buyers and the sellers.
C. If the demand curve is vertical, the economic incidence of an sales tax is completely on the consumers.
D. If the demand curve is vertical, the economic incidence of an excise tax is completely on the sellers.
E. All of A, B, C, and D are true.

Answer 1.13: D