

Economics 101
Professor Mazzocco
March 21, 2002

Midterm 2
Version 1

Name: _____

Section #: _____

TA: _____

*(Please see **last** page for discussion section and TA listing)*

Please do not open this exam until instructed to do so. All 30 questions are multiple-choice, to be answered 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 on this will not be graded. Please keep this booklet for your later reference.

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 your name and id number. Under special codes, enter your **discussion section** number in columns **A to C**, and the version number of your exam (found at the top of this page) in column **D**.

While taking the exam, do not be concerned about your grade. Let your instructors worry about that!

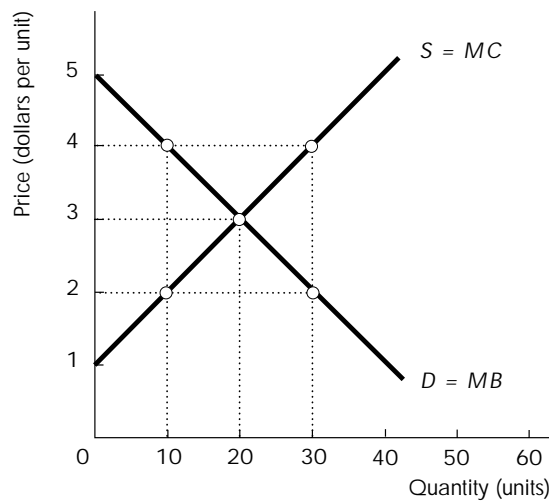
You have 65 minutes to complete the exam. Good luck and have a restful Spring Break.

- 1) A price floor above the market equilibrium price:
 - a. causes a surplus.
 - b. causes a shortage.
 - c. causes excess supply.
 - d. has no effect.
 - e. both a and c.
- 2) In general, how a sales tax is divided between buyers and sellers is determined by
 - a. the government's choice of whom to tax, buyers or sellers.
 - b. monetary policy.
 - c. the relative elasticities of supply and demand.
 - d. the revenue needs of government.
 - e. both a. and c.
- 3) The absolute value of the price elasticity of demand is 5 if a 10 percent increase in the price results in a
 - a. 2 percent decrease in quantity demanded.
 - b. 5 percent decrease in quantity demanded.
 - c. 10 percent decrease in quantity demanded.
 - d. 50 percent decrease in quantity demanded.
 - e. 100 percent decrease in quantity demanded.
- 4) A good has a perfectly inelastic supply and a downward sloping demand curve. Imposing a sales tax of \$1 on the good
 - a. raises the price paid by consumers by more than \$1.00.
 - b. raises the price paid by consumers by \$1.00.
 - c. raises the price paid by consumers by less than \$1.00.
 - d. does not change the price paid by consumers.
 - e. none of the above.
- 5) Demand for oranges is given by the equation $Q_D=6 - 2P$. At what price is the demand curve unit elastic?
 - a. \$3
 - b. \$2.50
 - c. \$2
 - d. \$1.50
 - e. none of the above.

- 6) An increase in subway fares will boost total expenditures on subway rides if
- the supply of subway tickets is elastic (>1).
 - the supply of subway tickets is inelastic (<1).
 - the demand for subway tickets is elastic (>1).
 - the demand for subway tickets is inelastic (<1).
 - both a. and c.

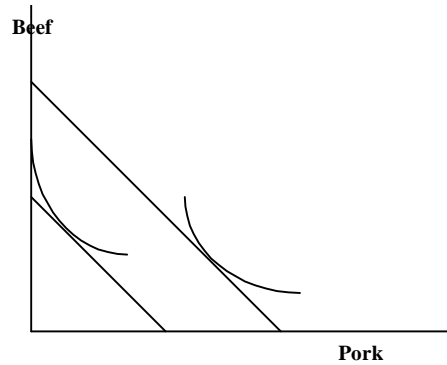
The next three questions consider the market for cigars, where the market demand is given by $Q_D = 600 - 20P$ and the market supply is given by $Q_S = 10P$.

- 7) The market equilibrium price and quantity of cigars is:
- $P^* = \$30, Q^* = 200$.
 - $P^* = \$20, Q^* = 200$.
 - $P^* = \$60, Q^* = 600$.
 - $P^* = \$10, Q^* = 100$.
 - $P^* = \$30, Q^* = 400$.
- 8) If the government imposed a price floor of \$25,
- a surplus of 300 cigars would result.
 - a shortage of 300 cigars would result.
 - a surplus of 150 cigars would result.
 - a shortage of \$150 cigars would result.
 - the price floor would have no effect on the market.
- 9) Now suppose that the government introduced a unit tax of \$9 per cigar on sellers, *instead of the price floor*. The after tax equilibrium price and quantity of cigars would be:
- $P^* = \$10, Q^* = 400$.
 - $P^* = \$18, Q^* = 100$.
 - $P^* = \$20, Q^* = 200$.
 - $P^* = \$21, Q^* = 150$.
 - $P^* = \$23, Q^* = 140$.



- 10) The above figure represents the market for apartments in Nowhere City. If the government imposes a price ceiling of \$2 and stipulates that the apartments are to be allotted in order of the willingness to pay (W.T.P.) of the renter (i.e. the higher a renter's W.T.P., the more likely she will get an apartment) then the deadweight loss is _____ and the consumer surplus is _____.
- \$10; \$25.
 - \$10; \$5.
 - \$20; \$20.
 - \$20; \$5.
 - The deadweight loss and consumer surplus cannot be determined without additional information.
- 11) In the previous question, suppose the government instead considers a policy in which the rent ceiling still existed, but the lowest valuation renters were to be allotted the apartments first. Then compared to the initial policy,
- this policy leads to a more efficient outcome
 - this policy leads to a less efficient outcome
 - this policy leads to the same outcome in terms of efficiency.
 - the relative efficiency of this policy is not quantifiable.
 - efficiency is an ill-defined concept for this policy..
- 12) If its goal is to raise tax revenue while minimizing deadweight loss, the federal government is likely to impose taxes on goods that have
- high elasticity of demand.
 - low elasticity of demand.
 - close substitutes.
 - positive externalities.
 - both a. and c.

- 13) A reduction in the equilibrium price of a good caused by an increase in supply
- shifts the good's demand curve leftward.
 - shifts the good's demand curve leftward and also decreases the quantity demanded.
 - shifts the good's demand curve rightward.
 - causes the equilibrium quantity to decrease.
 - neither shifts the good's demand curve nor decreases the quantity demanded.
- 14) If the demand for widgets is given by $Q_D=12-P$, and supply is given by $Q_S=2P$, and the government imposes a tax of \$3 per widget on sellers, the deadweight loss will be:
- \$6
 - \$3
 - \$4
 - \$5
 - \$2
- 15) The supply of tickets at one theater's box office for this Saturday's 4:30 show of a new movie is
- perfectly elastic until all seats are filled.
 - unit elastic.
 - perfectly inelastic
 - elastic
 - None of the above.
- 16) If a consumer doubles her quantity of ice cream consumed when her income rises by 25%, then her income elasticity of demand for ice cream is
- 8.0
 - 4.0
 - 0.25
 - 0.08
 - 2
- 17) If you are consuming a normal good and you have an increase in income such that the slope of your demand curve is unchanged, then at any given price, the price elasticity of demand will have
- increased in absolute terms
 - decreased in absolute terms
 - remained unchanged
 - a or c
 - None of the above.



- 18) For the consumer represented above, let Beef be the good on the vertical axis and Pork on the horizontal axis. Which of the following statements is true?
- The demand for Pork shifts right when income rises.
 - The income elasticity of demand for Pork is positive..
 - Pork is a normal good.
 - Beef is an inferior good.
 - All of the above.
- 19) If lower-income households spend a greater share of their income on cigarettes than do higher-income households, then a tax that raises the price of cigarettes will
- Cause lower-income households to incur a greater loss of consumer surplus than that incurred by higher-income households.
 - Cause higher-income households to incur a greater loss of consumer surplus than that incurred by lower-income households.
 - Raise consumer surplus among higher-income households.
 - Lower consumer surplus among lower income households.
 - Cause consumer surplus to decline among smokers, but the relative impact cannot be determined from the given information.
- 20) Sarah's linear demand curve for whiskey has the same slope as Pete's; however, it lies to the right of Pete's. An increase in the price of whiskey will cause
- Sarah to incur a greater loss of consumer surplus than Pete will.
 - Pete to incur a greater loss of consumer surplus than Sarah will.
 - Sarah and Pete to incur the same loss of consumer surplus.
 - Sarah's demand curve to shift closer to Pete's.
 - Both to be indifferent since they have the same indifference curves.

- 21) Mister Jones was selling his house. The asking price was \$220,000, and Jones decided he would take no less than \$200,000, which was his opportunity cost. After some negotiation, Mister Smith purchased the house for \$205,000. Jones' producer surplus was
- \$5,000
 - \$15,000
 - \$20,000
 - \$0
 - Cannot be determined.
- 22) If the government were to follow a policy of maximizing its tax revenues, then this means
- it would pick the highest point on the Laffer curve.
 - it would pick the point at which the Laffer curve hits the horizontal axis.
 - it would pick the point on the Laffer curve beyond which tax revenues start to decrease.
 - it would pick the point on the Laffer curve beyond which tax revenues start to increase.
 - Both a and c
- 23) Suppose that in the market for paper, demand is $P = 100 - Q$. The private cost of producing paper is $10 + Q$. However, pollution generated by the production process creates a per unit external harm (i.e. a negative externality) equal to Q (i.e. the level of the externality increases with the quantity produced). What is the socially optimal quantity of paper that should be produced?
- 45
 - 20
 - 30
 - 15
 - 8
- 24) Positive externalities are created when
- other consumer reduce their demand for coffee and price thereby declines.
 - farmers spray pesticide in their fields and it washes into the local river.
 - your neighbor plants beautiful flowers in her yard and you enjoy looking at them.
 - you purchase the "Mona Lisa" and lock it in a vault.
 - None of the above.

- 25) In the market for a public good, the equilibrium quantity of the good produced is too low because
- a. a public good is an example of a positive externality
 - b. the benefits of the good are not fully internalized by the producer
 - c. a public good is an example of a negative externality
 - d. Both a and b
 - e. society doesn't want more to be produced.

The next **three** questions deal with the following situation. Recall that we talked about these specific issues in class.

Robert has a big screen TV that he decides to auction to one of two married friends, Mike or Scott. Mike has an income of \$2000 and he is willing to pay up to \$1200 for the TV. Scott's income is also \$2000, but he is willing to pay up to \$1000 for the TV. Robert will sell the TV to the highest bidder.

- 26) The TV is sold to ____ at a price of ____.
- a. Mike; \$1200 + 1 cent
 - b. Scott; \$1000 + 1 cent
 - c. Mike; \$1000 + 1 cent
 - d. Scott; \$1200 + 1 cent
 - e. No one; the price is indeterminate.
- 27) This transaction generates a consumer surplus of ____.
- a. \$200 - 1 cent
 - b. \$100 - 1 cent
 - c. \$50 - 1 cent
 - d. \$300 - 1 cent
 - e. \$150 - 1 cent
- 28) Suppose the TV generates an external cost of \$150 on Mike's wife. If Mike bought the TV what would be the total joint surplus of Mike and his wife?
- a. \$200 - 1 cent
 - b. \$100 - 1 cent
 - c. \$50 - 1 cent
 - d. \$75 - 1 cent
 - e. \$150 - 1 cent

- 29) You notice that both the market equilibrium price and quantity of wheat decrease. This observation can be the result of the
- a. demand curve for wheat shifting rightward.
 - b. demand curve for wheat shifting leftward.
 - c. supply curve of wheat shifting rightward.
 - d. supply curve of wheat shifting leftward.
 - e. both a and d
- 30) A vertical demand curve for a particular good implies that consumers are
- a. sensitive to changes in the price of that good.
 - b. not sensitive to changes in the price of that good.
 - c. irrational.
 - d. not interested in that good.
 - e. unable to decide what to do when price changes.

Section	Time & Day	Location	TA
326	9:55 M	215 Ingraham	Jimmy
327	11:00 M	23 Ingraham	Jimmy
328	12:05 M	6101 Soc. Sci.	Jimmy
329	1:20 M	6322 SS	Ma
330	2:25 R	5322 SS	Hua
331	1:20 R	1080 Grainger	Ma
334	9:55 F	224 Ingraham	Hua
335	9:55 F	14 Ingraham	Kamil
336	11:00 F	120 Ingraham	Ma
337	11:00 F	224 Ingraham	Jimmy
338	12:05 F	6232 SS	Ma
339	12:05 F	6101 SS	Kamil
340	1:20 F	6112 SS	Kamil
343	2:25 F	6116 SS	Hua
344	8:50 M	6310 SS	Kamil
345	9:55 M	6203 SS	Ritesh
346	11:00 M	114 Ingraham	Hua
347	3:30 F	4314 SS	Hua