

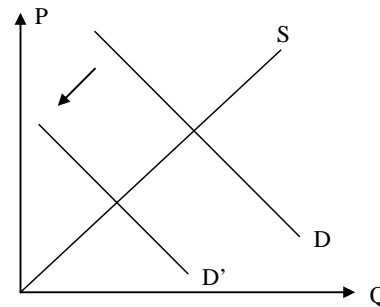
Brigham Young University Department of Economics
Economics 110 – Principles of Economics
Professor Kerk Phillips – Spring Term 2007, section 1

Final Exam key
6/20 – 6/21 Testing Center

This test is multiple choice, fill in your answers on the answer sheet and do not write on this exam. It is closed book and closed notes. There is no time limit and you may use calculators; either those provided by the testing center or your own as long as it is not a programmable calculator. Read all questions carefully before answering. There are 50 questions and 11 pages to this exam.

1. For an income *inferior* good, an increase in consumer income, all else equal, will cause price in a market to ____, and quantity exchanged to ____.

- a) rise, rise
- b) rise, fall
- c) fall, rise
- d) fall, fall**
- e) it is impossible to tell with the given information



2. Suppose that at a price of \$3, Cougar Burgers sells 6000 cheeseburger per week. Then, when it rises to \$5, 4000 cheeseburgers per week are sold. By the midpoint method, the price elasticity of demand for cheeseburgers is:

- a) -.20
- b) -.25
- c) -.80** $= \% \Delta Q / \% \Delta QP = (-2000/5000) / (2/4) = -4/5 = -.80$
- d) -1.25
- e) none of the above

3. The elastic portion of a straight-line (also called linear) demand curve is...

- a) the section above and to the left of the midpoint**
- b) the midpoint only
- c) the section below and to the right of the midpoint
- d) the entire demand curve
- e) none of the above

4. Which of the following factors would tend to make the price elasticity of demand more inelastic?

- a) The good is a necessity, rather than a luxury**
- b) The good has many close substitutes
- c) The good is defined very precisely
- d) The time horizon over which we are looking is relatively long
- e) none of the above

5. A binding price ceiling causes...
- a) **a shortage of the good**
 - b) a surplus of the good
 - c) an equilibrium allocation where supply equals demand
 - d) sometimes a shortage and sometimes a surplus
 - e) none of the above
6. If the elasticity of supply is less than the elasticity of demand, then the burden of a tax ...
- a) falls more heavily on consumers than producers
 - b) **falls more heavily on producers than consumers**
 - c) falls equally on consumers and producers
 - d) is almost zero
 - e) none of the above

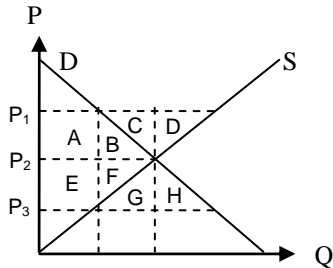
Use the following *unit labor requirements* for questions 7 – 9:

| | Japan | USA |
|-----------|-------|-----|
| Cars | 10 | 15 |
| Airplanes | 500 | 300 |

7. The relative cost of one airplane in Japan is...
- a) 100 cars per airplane
 - b) **50 cars per airplane**
 - c) 20 cars per airplane
 - d) 10 cars per airplane
 - e) none of the above
8. _____ has the absolute advantage in producing cars, and _____ has the absolute advantage in producing airplanes.
- a) Japan, Japan
 - b) **Japan, the U.S.**
 - c) the U.S., Japan
 - d) the U.S., the U.S.
 - e) it is impossible to tell with the given information
9. _____ has the comparative advantage in producing corn, and _____ has the comparative advantage in producing movies.
- a) Japan, Japan
 - b) Japan, the U.S.
 - c) the U.S., Japan
 - d) the U.S., the U.S.
 - e) **it is impossible to tell with the given information**
we can't tell since the table deals with cars & airplanes (this was a typo, I forgot to change the goods when I copied this question)

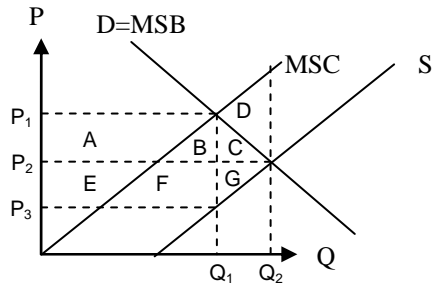
10. When the price of wheat is \$10 per unit 4.5 million units are supplied. When the price falls to \$6 per unit only 3.5 million units are supplied. If the only thing that caused the quantity supplied to change was the change in price, then the price elasticity of supply is...
- a) $\frac{1}{4}$
b) $\frac{1}{2}$ $= \% \Delta Q / \% \Delta QP = (-1 \text{ million} / 4 \text{ million}) / (-4/8) = 1/2$
 c) 1
 d) 4
 e) none of the above

Use the following figure to answer questions 11 – 14. This figure illustrates a tax.



11. The change in government revenue is...
- a) $+(A+E)$
b) $+(A+B+C)$
 c) $+(E+F+G)$
 d) $+(A+B+C+E+F+G)$
 e) none of the above
12. The change in producer surplus is...
- a) $+(A+B+C+D)$
b) $-(E+F)$
 c) $-(A+B)$
 d) $+(E+F+G+H)$
 e) none of the above
13. The change in consumer surplus is...
- a) $+(A+B+C+D)$
 b) $-(E+F)$
c) $-(A+B)$
 d) $+(E+F+G+H)$
 e) none of the above
14. The net loss to society or deadweight loss (ignoring the minus sign) is...
- a) **(B+F)**
 b) (C+G)
 c) (D+H)
 d) (C+D+ G+H)
 e) none of the above

Use the following figure to answer questions 15 – 18. MSB stands for “marginal social benefit” and MSC stands for “marginal social cost”.



15. The figure above can best be described as illustrating...
- A positive consumption externality
 - A negative consumption externality
 - A positive production externality
 - A negative production externality**
 - none of the above
16. The socially optimal quantity in this case is an amount...
- less than Q_1
 - exactly equal to Q_1**
 - greater than Q_1 but less than Q_2
 - exactly equal to Q_2
 - greater than Q_2
17. The net social gain (costs not incurred and/or benefits realized) associated with moving from the market allocation to the socially optimal one is...
- + (C)
 - + (D)**
 - + (C+G)
 - + (C+D+G)
 - none of the above
18. The socially optimal allocation is arrived at by imposing...
- a subsidy of size $(P_1 - P_3)$
 - a tax of size $(P_1 - P_3)$**
 - a subsidy of size $(P_1 - P_2)$
 - a tax of size $(P_2 - P_3)$
 - none of the above
19. A market structure with only a few sellers of an identical good is called...
- monopoly
 - oligopoly**
 - monopolistic competition
 - perfect competition
 - none of the above

24. Real GDP in 2006 was...
- a) \$200
 - b) \$250
 - c) \$300
 - d) \$550
 - e) **none of the above** $=\$1 \times 125 + \$10 \times 20 = \$325$

25. The approximate value of the GDP deflator in 2006 was...
- a) 100.0
 - b) 125.0
 - c) **169.2** $= \$500 / \325×100
 - d) 181.7
 - e) none of the above is even close

Use the following data for questions 26 – 27

| | Price | | | Quantity in Market Basket |
|---|-------|------|------|---------------------------|
| | 2000 | 2006 | 2007 | |
| Good 1 | \$10 | \$12 | \$15 | 100 |
| Good 2 | \$10 | \$15 | \$20 | 50 |
| Cost of Basket in 2000 = 100 x \$10 + 50 x \$10 = \$1500 | | | | |
| Cost of Basket in 2006 = 100 x \$12 + 50 x \$15 = \$1950 | | | | |
| Cost of Basket in 2007 = 100 x \$15 + 50 x \$20 = \$2500 | | | | |

26. The value of the CPI in 2006 was...
- a) 110.0
 - b) 120.0
 - c) **130.0** $= \$1950 / \1500×100
 - d) 140.0
 - e) none of the above
27. The approximate inflation rate between 2006 and 2007 was...
- a) **28.2%** $= (\$2500 - \$1950) / \$1950$
 - b) 30.0%
 - c) 37.1%
 - d) 42.1%
 - e) none of the above is even close

28. Growth accounting studies like those done by Solow reveal that the biggest factor behind the growth of real GDP in most countries over the past several decades is...
- a) the growth of the labor force
 - b) the growth of capital stocks
 - c) **the growth of technology**
 - d) the growth of government services
 - e) none of the above

Use the following data to answer questions 29 – 31

Data from the quaint, but mythical country of Zalchistan:

| | |
|------------------------------|------------|
| Employed Workers | 13 million |
| Military & Institutionalized | 1 million |
| Unemployed Workers | 1 million |
| Not in the Labor Force | 10 million |
| Children under the Age of 16 | 5 million |

Military, Institutionalized & Children are ignored

29. The labor force is...

- a) 13 million
- b) 14 million = Employed + Unemployed**
- c) 15 million
- d) 20 million
- e) none of the above

30. The labor force participation rate is approximately...

- a) 46.6%
- b) 50.0%
- c) 58.3% = 14 million / 24 million**
- d) 60.0%
- e) none of the above

31. The unemployment rate is approximately...

- a) 3.3%
- b) 7.2% = 1 million / 14 million (7.14%) which is close enough, but see below**
- c) 7.7%
- d) 13.3%
- e) none of the above (since rounding gives 7.1% this is strictly speaking the correct answer)**

32. In the US, the consumer price index is calculated and reported by...

- a) The Bureau of the Census
- b) The Bureau of Economic Analysis
- c) The Bureau of Labor Statistics**
- d) The Federal Reserve
- e) none of the above

33. The monthly employment data released each month are based on...

- a) a household survey only
- b) an establishment (firm) survey only
- c) both a household survey and an establishment survey**
- d) a household survey, an establishment survey, and a survey of federal, state and local governments
- e) none of the above

34. One widely accepted reason that unemployment is higher in Europe than in the US is...
- that US workers have a stronger work ethic due to their cultural heritage
 - that longer and more generous unemployment benefits in Europe make workers less likely to accept jobs if they are unemployed**
 - because US unemployment statistics are calculated differently than those in Europe
 - this is a trick question, unemployment rates are actually lower in Europe than in the US
 - none of the above
35. Suppose Zoobie Zinc Mining Inc. (ZZM) wants to raise \$500,000 by issuing one-year simple bonds. The interest rate on bonds issued by other corporations with similar credit worthiness is 20%. How many \$10,000 face-value bonds will ZZM need to sell to raise \$500,000 today?
- 50
 - 55
 - 60**
 - 65
 - none of the above
- The price of a \$10,000 face-value bond is given by $P(1+i)=FV$ or $P(1.2)=\$10,000$ so that $P = \$8333.33$**
So ZZM needs to sell $\$500,000 / \$8333.33 = 60$ bonds
36. KP Enterprises offers \$2 million worth of simple one-year bonds for sale on the bond market. They sell for \$1.75 million. The interest rate on these bonds is...
- 12.5%
 - 14.3%**
 - 25.0%
 - impossible to calculate with the given information
 - none of the above
- $P(1+i)=FV$ or $i = FV/P - 1 = \$2 \text{ million} / \$1.75 \text{ million} - 1 = .143$**
37. Which of the following is NOT a commonly used method of transferring funds from savers to borrowers?
- Bonds
 - Stocks
 - Bank deposits & loans
 - Mutual Funds
 - All of the above are widely used**
38. Which of the following is NOT an example of fiat money?
- Checking Account Deposits**
 - Federal Reserve Notes (currency)
 - Dollar coins
 - Dimes
 - All of the above are fiat money

Use the following data for questions 39 – 40

| | |
|--|---------------|
| Currency in Circulation | \$100 million |
| Demand Deposits and other Checkable Deposits | \$400 million |
| Money Market Mutual Fund Balances | \$500 million |
| Other Minor Categories | zero |
| Savings and small Time Deposits | \$300 million |
| Traveler's Checks | \$ 50 million |
| Value of all Stocks held | \$900 million |

39. The value of M1 is...

- a) \$500 million
- b) \$850 million
- c) \$1350 million
- d) \$2250 million
- e) **none of the above** **Currency + Traveler's Checks + Checkable Deposits = 550**

40. The value of M2 is...

- a) \$500 million
- b) \$850 million
- c) **\$1350 million** **M1 + small time deposits + MMMF +other = 1350**
- d) \$2250 million
- e) none of the above

41. The number of regional Federal Reserve Banks in the US is...

- a) 1
- b) 8
- c) 10
- d) **12**
- e) none of the above

42. The purchase or sale of bonds by the central bank on the bond market is called...

- a) Reserve lending
- b) Discount rate lending
- c) A currency swap
- d) **An open-market operation**
- e) none of the above

43. The interest rate that the Federal Reserve System charges when banks borrow from it is called...

- a) **The discount rate**
- b) The federal funds rate
- c) The prime lending rate
- d) The treasury lending rate
- e) none of the above

44. If the reserve requirement is 5%, then the simple money multiplier from the textbook is...
- a) 5
 - b) 10
 - c) **20 = 1/.05**
 - d) 50
 - e) none of the above
45. Formally, monetary policy for the US is set by...
- a) The Council of Economic Advisors
 - b) The Joint Economic Committee of Congress
 - c) The Chairman of the Federal Reserve Board (Ben Bernanke)
 - d) No one, the US has no formal monetary policy
 - e) **none of the above The Federal Open Market Committee**
46. Dr. Landsburg illustrates the Coase Theorem using...
- a) a dairy farm and neighbors upset by the smell
 - b) **a doctor whose office is plagued by noise from a nearby candy factory**
 - c) a pair of economists walking down the street in New Orleans
 - d) a neighbor in Rochester who refuses to mow his lawn
 - e) none of the above
47. The Springville aquarium fable in Landsburg's book was meant to illustrate...
- a) that the government can improve citizens' welfare by correcting an externality
 - b) free provision of goods via taxes is clearly less efficient than providing them through the market
 - c) sharks are scary
 - d) **even free goods & services like an aquarium provide no net benefit due to non-monetary opportunity costs like standing in line**
 - e) none of the above
48. One of the reasons Dr. Landsburg was critical of Richard J. Dennis' article in *Atlantic Monthly* was because...
- a) he failed to count the tax revenue that would be gained from a sales tax on drugs as a net benefit
 - b) he counts the incarceration of drug users as a cost to society when it is only a cost to the drug users themselves, not society
 - c) **he counts the full value of goods stolen to feed a drug habit as a net social cost, which would be true only if the goods ceased to exist.**
 - d) he fails to cite one of Dr. Landsburg's scholarly articles on the subject
 - e) none of the above

49. Dr. Landsburg views the political relationship between the Democratic and Republican parties as the political version of which market structure?

- a) Perfect competition
- b) Monopoly
- c) **Collusion between duopolists**
- d) It is impossible to tell from what he has written in the book
- e) none of the above

50. Which best describes Dr. Landsburg's view of environmentalism?

- a) **It is a mixture of myth, superstition and ritual that has much in common with religious cults**
- b) It is a well-meant, often successful, but occasionally misguided attempt to balance the need to preserve nature against other human needs.
- c) It is the natural conclusion any rational, logical person will reach if they just think seriously about the environment.
- d) It is a moral imperative to preserve and protect the environment and this is one of the few areas where economic thinking leads people astray.
- e) none of the above