

**Brigham Young University Department of Economics**  
**Economics 110 – Principles of Economics**  
**Professor Kerk Phillips – Spring Term 2009, section 1**

**Final Exam key**  
6/17 – 6/18 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. Read all questions carefully before answering. There are 50 questions and 11 pages to this exam.

1. Suppose that at a price of \$4.50, Cougar Burgers sells 11,000 cheeseburger per week. Then, when it rises to \$5.50, 9000 cheeseburgers per week are sold. By the midpoint method, the price elasticity of demand for cheeseburgers is:

- a) -.25
- b) -.50
- c) -.80
- d) -1.00 (-2000/10,000)/(\$1/\$5)**
- e) none of the above

2. For substitute goods, an increase in the price of good A, all else equal, will cause price in the market for good B to \_\_\_\_, and quantity exchanged to \_\_\_\_.

- a) rise, rise demand curve shifts out, supply curve is unchanged**
- b) rise, fall
- c) fall, rise
- d) fall, fall
- e) it is impossible to tell with the given information

3. The inelastic 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 LESS elastic?

- a) The good is a luxury, not a necessity
- b) The good has many close substitutes
- c) The good is an income inferior one (**irrelevant**)
- d) The time horizon over which we are looking is relatively long
- e) none of the above**

5. If the elasticity of supply and the elasticity of demand are both equal and much larger than one, 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

6. A non-binding price floor (i.e. one where the price floor is below the market-clearing price) causes...

- a) a shortage of the good
- b) a surplus of the good
- c) **an equilibrium allocation where supply equals demand (non-binding)**
- d) sometimes a shortage and sometimes a surplus
- e) none of the above

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

	Japan	USA
Cars	500	1000
Airplanes	20,000	25,000

7. The relative cost of one airplane in the USA is...

- a) 50 cars per airplane
- b) **25 cars per airplane**
- c) 15 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.

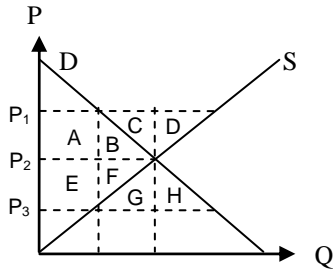
- a) **Japan, Japan**
- b) Japan, the U.S.
- c) the U.S., Japan
- d) the U.S., the U.S.
- e) it is impossible to tell with the given information

9. \_\_\_\_\_ has the comparative advantage in producing cars, and \_\_\_\_\_ has the comparative 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

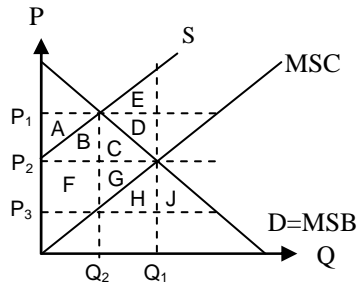
10. When the price of wheat is \$100 per unit 45 million units are supplied. When the price falls to \$20 per unit only 35 million units are supplied. If the only thing that caused the quantity supplied to change was the change in price, then the price elasticity of supply is...
- a) 1/3
  - b) 1/2
  - c) 2
  - d) 3
  - e) none of the above **(10 million/40 million)/(\$80/\$60) = 3/8**

Use the following figure to answer questions 11 – 14. This figure illustrates a *tax of  $P_1 - P_3$  per unit*.



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 – 19. 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 market provided quantity in this case is an amount...
- less than  $Q_2$
  - exactly equal to  $Q_2$**
  - greater than  $Q_2$  but less than  $Q_1$
  - exactly equal to  $Q_1$
  - greater than  $Q_1$
17. The socially optimal quantity in this case is an amount...
- less than  $Q_2$
  - exactly equal to  $Q_2$
  - greater than  $Q_2$  but less than  $Q_1$
  - exactly equal to  $Q_1$**
  - greater than  $Q_1$
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. The gain to society as a whole associated with moving from the market allocation to the socially optimal one is...
- $+(D+E)$**
  - $+(C+G)$
  - $+(C+D+E+G)$
  - $+(C+D+G+H)$
  - none of the above

20. A monopolist will maximize profits if...

- a) marginal revenue equals price
- b) marginal cost equals price
- c) **marginal revenue equals marginal costs**
- d) price equals marginal fixed cost
- e) none of the above

21. Use the following data to calculate GDP

Private Consumption	\$200 billion
Private Investment	\$100 billion
Government Purchases of Goods and Services	\$100 billion
Government Transfer Payments	\$ 20 billion
Exports	\$ 50 billion
Imports	\$ 90 billion

- a) \$420 billion
- b) \$400 billion
- c) \$380 billion
- d) **\$360 billion**                       $200+100+100+50-90 = 360$
- e) none of the above

22. Bandoleros Motor Company sells \$450 million of merchandise. They purchased \$100 million worth of materials and paid \$200 million in wages and \$50 million in rent and interest payments. Their total value added to GDP is...

- a) \$450 million
- b) **\$350 million**       $450 - 100$
- c) \$200 million
- d) \$100 million
- e) none of the above

Use the following data for questions 23 – 25

	Price		Quantity Produced	
	2000	2008	2000	2008
Good 1	\$ 10	\$ 15	75	100
Good 2	\$100	\$125	10	20

Assume these are the only two goods in the economy. Also assume 2000 is the base year.

23. Nominal GDP in 2008 was...

- a) **\$4000**       $100 \times 15 + 20 \times 125$
- b) \$4375
- c) \$4775
- d) \$5125
- e) none of the above

24. Real GDP in 2008 was...
- a) \$2000
  - b) \$2500
  - c) **\$3000  $100 \times 10 + 20 \times 100$**
  - d) \$5500
  - e) none of the above
25. The approximate value of the GDP deflator in 2008 was...
- a) **133.3  $(4000/3000) \times 100$**
  - b) 150.0
  - c) 166.7
  - d) 200.0
  - e) none of the above is even close

Use the following data for questions 26 – 27

	Price			Quantity in Market Basket
	2000	2007	2008	
Good 1	\$10	\$11	\$12	200
Good 2	\$10	\$12	\$15	100

26. The value of the CPI in 2008 was...
- a) 120.0
  - b) 140.0
  - c) 160.0
  - d) 180.0
  - e) **none of the above  $(200 \times 12 + 100 \times 15) / (200 \times 10 + 100 \times 10) \times 100 = 3900 / 3000 \times 100 = 133.3$**
27. The approximate inflation rate between **2006 and 2007 (typo)** was...
- a) **14.7%  $(3900 - 3400) / 3400$**
  - b) 11.2%
  - c) 6.5%
  - d) 3.3%
  - e) **none of the above is even close**
28. A market structure with many different varieties of a good, each slightly different and in which there is free entry and exit by firms is most accurately described as...
- a) perfect competition
  - b) duopoly
  - c) monopoly
  - d) **monopolistic competition**
  - 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	24 million
Unemployed Workers	1 million
Not Employed or Seeking a Job	15 million
Military & Institutionalized	3 million
Children under the Age of 16	5 million

29. The labor force is...

- a) **25 million**      **employed + unemployed**
- b) 26 million
- c) 27 million
- d) 30 million
- e) none of the above

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

- a) 96.0%
- b) **62.5%**    **25/40**
- c) 61.5%
- d) 60.0%
- e) none of the above

31. The unemployment rate is approximately...

- a) 14.30%
- b) **4.00%**    **1/25**
- c) 3.33%
- d) 2.50%
- e) none of the above

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. How many regional Federal Reserve Banks are there in the Federal Reserve System?
- a) 8
  - b) 10
  - c) **12**
  - d) 15
  - e) none of the above
35. The current chairman of the Federal Reserve Board is...
- a) Barack Obama
  - b) Christie Romer
  - c) **Ben Bernanke**
  - d) Larry Summers
  - e) none of the above
36. KP Enterprises offers a simple one-year bond for sale with a face value of \$100,000. It sells for \$95,000. The interest rate on these bonds is...
- a) 2.00%
  - b) 5.00%
  - c) **5.26%  $100,000/95,000 - 1$**
  - d) impossible to calculate with the given information
  - e) none of the above
37. What is the present value of \$1000 in exactly one year if the interest rate is 4.4%
- a) \$ 694.44
  - b) \$ 917.49
  - c) **\$ 957.85  $1000/1.044$**
  - d) impossible to calculate with the given information
  - e) none of the above
38. Which of the following is an example of a commodity money?
- a) Checking Account Deposits
  - b) **100% Gold Spanish Milled Dollars**
  - c) US Treasury Silver Certificates
  - d) Federal Reserve Notes (dollar bills)
  - e) All of the above are fiat money

39. Funds held by banks that meet legal reserve requirements include...
- a) Stocks
  - b) Mortgage-backed Securities
  - c) Demand Deposits
  - d) Deposits at the Federal Reserve System**
  - e) none of the above
40. The US banking system today is best described as...
- a) a 100% reserve-backed system
  - b) a fractional currency system
  - c) a free banking system
  - d) a fractional reserve system**
  - e) none of the above are even close to accurate
41. If the inflation rate is 3% and the nominal interest rate is 5%, then the real interest rate is...
- a) 8%
  - b) 5%
  - c) 2%**
  - d) impossible to calculate with the given information
  - e) none of the above
42. The purchase or sale of bonds by the central bank on the bond market is called...
- a) Discount rate lending
  - b) A currency swap
  - c) An open-market operation**
  - d) Reserve lending
  - e) none of the above
43. The quantity theory of money says that if real GDP rises by 5% and the money supply rises by 8% while velocity remains constant, then in the long-run prices must rise by...;
- a) 13%
  - b) 8%
  - c) 3%  $MV=PY$  8% + 0% = inflation + 5%**
  - d) impossible to calculate with the given information
  - e) none of the above

44. If the reserve requirement is 10%, then the simple money multiplier from the textbook is...

- a) 5
- b) 10 1/rr**
- c) 20
- d) 50
- e) none of the above

45. Formally, monetary policy for the US is set by...

- a) The President of the New York Federal Reserve Bank
- b) The Federal Reserve Board of Governors
- c) The Chairman of the Federal Reserve Board
- d) The Federal Reserve Regulatory Oversight Committee
- e) none of the above      Federal Open Market Committee**

46. Total domestic savings minus total domestic investment is

- a) net capital outflow**
- b) the capital account
- c) zero by definition
- d) always positive
- e) none of the above

Use the following information to answer questions 47 - 50

	1/1/2008	1/1/2009
Nominal exchange rate	\$ 1.5 per £	\$ 1.6 per £
Price of a US basket of goods	\$ 100	\$ 110
Price of a UK basket of goods	£ 85	£ 85

47. Between 2008 & 2009 the nominal exchange rate (measured in \$/£) ...

- a) appreciated**
- b) depreciated
- c) wound up
- d) revalued
- e) none of the above

48. The value of the real exchange rate on 1/1/2009 was ...

- a) 1.36
- b) 1.24  $exP^*/P = 1.5*85/100$**
- c) 1.13
- d) 1.02
- e) none of the above

49. Between 2008 & 2009 the real exchange rate ...
- a) **appreciated value was 127.45 in 2008**
  - b) depreciated
  - c) wound up
  - d) revalued
  - e) none of the above
50. In the example above the real exchange rate is measured in...
- a) \$ per £
  - b) £ per \$
  - c) **US baskets per UK basket**
  - d) UK baskets per US basket
  - e) none of the above