

Econ 102, Section 100

NAME: (print) _____

Final Exam, Form 1

UM ID # _____

Section # _____

Econ 102/100

Final Exam

April 19, 2007

Section	Day	Time	Location	GSI
101	Friday	2:30-4	140 Lorch	JB
102	Friday	11:30-1	1202 Ed. School	Sue
103	Friday	1-2:30	140 Lorch	Angus
104	Friday	10-11:30	1202 Ed. School	Sue
105	Friday	2:30-4	140 Lorch	Angus
106	Friday	10-11:30	1202 Ed. School	Omar
107	Friday	1-2:30	140 Lorch	JB
108	Friday	11:30-1	1202 Ed. School	Omar
109	Friday	11:30-1	140 Lorch	Brian

Instructions

- Do NOT open this exam booklet until instructed to do so!
- Please take a moment to complete the identification information on the scantron. Indicate your NAME, discussion SECTION number, FORM number, and UM ID number. **THIS IS WORTH TWO POINTS ON THE EXAM!**
- The exam has 139 points and you will have 2 hours to complete the exam. Check that you have all 14 pages of the exam.
- Read the questions and these instructions carefully!
- Use the space provided in this booklet and the back of the pages to work out the answers to the multiple choice problems. Use the space provided on the actual page for the short answer questions.
- You can use only NON-graphing calculators.
- For multiple choice questions, you get 3 points for a correct answer, 0 points for a blank, and 0 points for a wrong answer. There are NO penalties for guessing.
- Sign the honor code below!

Honor Code: I did not use any unauthorized aid on this exam.

Signature: _____

Part I: Multiple Choice: (39 questions, 3 pts each=117 points)

1. Which of the following would NOT shift the US Aggregate Demand curve?
 - a. A decrease in reserve requirements for US commercial banks.
 - b. A rise in the US price level.**
 - c. A decrease in the US money supply.
 - d. A deep recession in Europe.
 - e. A cut in the US income tax.

2. Using the AD-AS model, which of the following COULD explain a short-run rise in the price level with no change in the level of unemployment?
 - a. A rise in oil prices.
 - b. An increase in government spending.
 - c. An investment tax credit.
 - d. An investment tax credit combined with a decrease in government spending.
 - e. An investment tax credit combined with a rise in oil prices.**

3. Which of the following changes is MOST LIKELY to shift the Long Run Aggregate Supply (LRAS) curve to the right?
 - a. A permanent increase in the minimum wage to \$10 per hour.
 - b. A decrease in the expected price level.
 - c. The introduction of new import quotas, which will remain in place forever.
 - d. An increase in the capital stock.**
 - e. An expansion of the number of troops in the volunteer army.

4. In the AD-AS model, which of the following describes the transition from short-run to long run equilibrium?
 - a. After a demand shock, the AD curve shifts back to its initial position.
 - b. After a supply shock, the AS curve shifts back to its initial position.**
 - c. After a supply shock, AD shifts in the opposite horizontal direction to that of AS.
 - d. After a demand shock, AS shifts in the same horizontal direction as AD.
 - e. None of the above.

5. Suppose the Fed increases the money supply. Which of the following statements about the short-run effects of this policy is false?
 - a. The interest rate decreases.
 - b. Output goes up.
 - c. Investment increases.
 - d. Consumption increases.
 - e. All of the above statements are correct.**

6. Suppose a rumor spread through Wall Street that Fed Chairman Ben Bernanke has changed his opinion about inflation and is now more tolerant of higher price levels. The rumor is false, but people believe it anyway. Which of the following would be a short-run effect of this rumor?
- Money supply increases, shifting AD to the right and leading to higher output and a higher price level.
 - Expected prices are higher, shifting AS to the left and leading to lower output and a higher price level.**
 - Businesses become more optimistic about future profitability. As a result, they increase their investments, shifting AD to the left.
 - People increase their savings in anticipation of higher future prices. This leads to a decrease in consumption, shifting AD to the left.
 - Expected prices are higher, shifting AS to the right and leading to a higher output and lower price level.
7. The country of Econostan produces and consumes fruits, vegetables, and electronic gadgets. It imports and consumes olive oil, cars, and chocolate. If the prices for oil and cars increase and the prices of vegetables go down, then:
- CPI goes up while the GDP deflator goes down.
 - GDP deflator goes down while the change in CPI is ambiguous.**
 - GDP deflator goes up while CPI remains the same.
 - CPI goes up while the change in GDP deflator is ambiguous.
 - None of the above.

Answer the following question using the information provided in the table below:

year	2001	2001	2002	2003
Real GDP	100	120	140	150
Nominal GDP	110	140	150	170

8. To the nearest percent, and based on the GDP deflator, what is the inflation rate between 2002 and 2003?
- 3%
 - 4%
 - 6%**
 - 5%
 - None of the above.

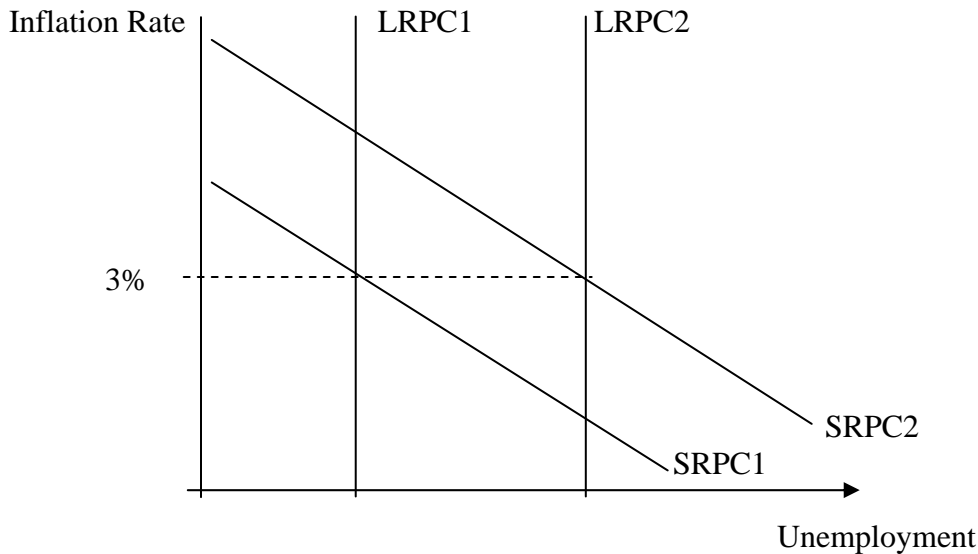
9. Which of the following is a CORRECT statement about the GDP deflator?
- a. The GDP deflator rises in proportion to the amount of real output in the economy.
 - b. When unemployment increases, the GDP deflator must fall.
 - c. **The GDP deflator reflects the prices of goods and services produced in the economy regardless of whether they are consumed.**
 - d. If you are given nominal GDP and the CPI, you can calculate the GDP deflator.
 - e. The GDP deflator and the CPI will show the same rate of inflation.
10. In 2006, Brian (a U.S. citizen) rented an apartment in a building owned by a U.S. company. The building was built in 1974. Brian paid the rent using money that he earned by working in the U.S. in 2006. Which of the following statements is CORRECT?
- a. Since we don't know who paid Brian for his labor, we can't say how Brian's rent affects U.S. GDP.
 - b. Because the apartment building is an existing structure, Brian's rent does not affect U.S. GDP.
 - c. If the U.S. company does not spend Brian's rent, the rent will decrease U.S. GDP.
 - d. **Brian's rent adds to U.S. GDP.**
 - e. None of the above.
11. Consider the market for Loanable Funds in a closed economy. Which of the following statements is CORRECT?
- a. **An increase in the tax rate on income from financial assets will shift the supply for loanable funds to the left.**
 - b. An increase in the interest rate will shift the demand for loanable funds to the left.
 - c. An increase in the government budget deficit will shift the supply of loanable funds to the right.
 - d. The quantity of loanable funds demanded decreases as the interest rate falls.
 - e. The government can increase the equilibrium quantity of funds supplied by increasing its spending without raising taxes.

12. Omar is considering borrowing 1 million dollars to start his own Econ 102 tutoring business. Which of the following events will make it CHEAPER, in real terms, for Omar to borrow the 1 million dollars?
- Firms become more optimistic and increase the amount they wish to invest at a given interest rate.
 - The government increases the budget deficit.
 - Firms become more pessimistic and reduce the amount they wish to invest at a given interest rate.**
 - Before Omar borrows the money, the rate of inflation increases permanently.
 - Congress passes a tax increase on income earned from bonds.
13. Angus is holding \$100 in his pocket. According to the quantity theory of money, what will happen to the price level and the real value of the Angus's \$100 if the Fed decreases the money supply?
- The price level will fall and the real value of the \$100 will decrease.
 - The price level will rise and the real value of the \$100 will decrease.
 - The price level will remain constant but the real value of the \$100 will increase.
 - The price level will fall and the real value of the \$100 will increase.**
 - The price level will rise but the real value of the \$100 will remain constant.
14. Suppose that Ben Bernanke decides to increase the rate of growth in the money supply from 2% to 10% per year. J.B. wants to write a research paper about the long run effects of this change in monetary policy. Which of these effects will occur in the long run?
- People will incur increased shoeleather costs.**
 - The nominal interest rate will decrease.
 - The real interest rate will decrease.
 - The rate of inflation will remain constant.
 - The permanent increase in money supply growth means that monetary neutrality does not apply.
15. On April 11 2007, 1 U.S. dollar could purchase 120 Japanese Yen. Suppose the cost of a basket of goods in the U.S. is \$50, and the cost of the same basket of goods in Japan is 6,000 Yen. Which of these statements about exchange rates between the U.S. and Japan is CORRECT?
- The theory of PPP predicts that the nominal exchange rate should rise.
 - The theory of PPP predicts that the nominal exchange rate should stay the same.**
 - The theory of PPP predicts that the real exchange rate should rise.
 - There is not enough information to figure out what PPP predicts.
 - None of the above.

16. This semester, Professor Deardorff purchased and consumed \$1,000 worth of coffee beans imported from Ethiopia. Which of the following actions by the Ethiopian firm that exported the beans would act to make the $NCO = NX$ identity hold for the U.S.?
- The firm locks Deardorff's dollars in a safe at its corporate headquarters.
 - The firm sells the dollars to an Ethiopian store that uses them to purchase DVDs of U.S.-produced movies.
 - The firm purchases shares of stock in Starbucks worth \$1000.
 - All of the above.**
 - None of the above.
17. What does the long run open economy model predict will happen to the real interest rate r and the real exchange rate E in the U.S. if the real interest rate in China increases?
- Nothing will happen to r or E .
 - There will be an effect on r and E , but the open economy model can't predict which directions in this case.
 - E may increase or decrease, and r goes up.
 - E increases and r goes down.
 - E decreases and r goes up.**
18. In Econ 102 we learned that trade policies cannot affect the trade balance. Which is the BEST explanation of why this is true?
- If the U.S. imposed a tariff on Chinese imports, China could just devalue its currency even more to defeat the tariff.
 - Trade policies tend to affect the real exchange rate in a way that offsets the intended effect of the policy.**
 - Policies such as quotas or tariffs are ineffective because foreign countries react by "dumping" their imports, meaning they sell their goods to the U.S. below cost.
 - Trade policies tend to affect the real interest rate in a way that offsets the intended effect of the policy.
 - Trade policies are ineffective because low real wages in other countries offset the intended effect of the policy
19. Which of the following statements is TRUE about fiscal policy in the short run?
- An increase in government spending would have a larger positive impact on GDP when the crowding-out effect is stronger.
 - The government spending multiplier goes up as the marginal propensity to save increases.
 - The government spending multiplier goes up as the marginal propensity to consume increases.**
 - An increase in taxes has the same effect on the economy as an equal increase in spending.
 - An increase in government spending would have a smaller positive impact on GDP when the crowding-out effect is weaker.

20. Which of the following is NOT an automatic stabilizer?
- The unemployment insurance system.
 - The monetary instruments controlled by the Fed.
 - The tax system.
 - A rule that the government budget must be balanced.
 - Neither (b) nor (d) is an automatic stabilizer.**
21. Suppose the Fed targets the interest rate and wants it to remain fixed. Which of the following is then a result of an increase in money demand (i.e. an upward shift in the money demand curve)?
- Consumption decreases.
 - Investment decreases.
 - Money supply increases.**
 - Output increases.
 - Both (a) and (b).
22. Suppose the current unemployment rate is at the natural rate of unemployment. Which of the following is correct?
- The current unemployment rate is zero.
 - Frictional unemployment equals zero.
 - Structural unemployment equals zero.
 - Cyclical unemployment equals zero.**
 - The actual unemployment rate can never equal the natural rate of unemployment rate because the latter is simply a theoretical concept.
23. Which statement is most consistent with the theory of efficiency wages?
- Wages are set by a bargaining process between which unions and firms.
 - The number of jobs is insufficient for the number of workers because the government sets an efficiency wage rate that is above the market clearing wage.
 - The number of jobs is insufficient for the number of workers because the firms choose to pay an efficiency wage rate that is above the market clearing wage.**
 - The workers are paid a fair wage rate that reflects their skills, education and effort.
 - Professor Deardorff is paid an efficiency wage because he is a government employee.

24. About the Phillips curve, the notion of *Rational Expectations*...
- ...implies that, in the long run, people's expectations about the inflation will tend to be correct.
 - ...implies that it is possible for monetary policy to have a real impact on the economy in the Long-Run.
 - ...gives us the horizontal Long-Run Phillips curve.
 - ...suggests that the *sacrifice ratio* between unemployment and inflation can be extremely high.
 - ...implies that in the long run, people's expectations about the inflation rate will systematically be too low.
25. To find empirical evidence from the last century supporting the existence of the short-run Phillips curve, one should look at:
- The early sixties, 1961-1965.**
 - The early seventies, 1969-1975.
 - The early eighties, 1979 – 1985.
 - The early nineties, 1990-1997.
 - No valid empirical evidence supports the Phillips curve, it is solely a theoretical construct.
26. The president of Djibouti wants to lower the unemployment rate of the country. The policies he can implement are limited; indeed the only tool at his disposal is an expansionary monetary policy. His plan is to increase the *rate of growth* of the money supply *every year* for the next 100 years. He's come to you for advice. Which of the following predictions is **FALSE**?
- Although this policy might be effective at first, eventually, it could have devastating effects because it will generate very high levels of inflation.
 - As long as he increases the rate of growth of the money supply predictably and by the same amount every year, this policy will keep on being effective in sustaining a lower rate of unemployment.**
 - Eventually many people will try to switch their Djiboutian francs into US dollars.
 - This policy will lower unemployment in the short-run.
 - This policy will have an effect on domestic Investment in the short run.
27. Which of the following is most likely to cause a permanent increase in GDP per capita?
- A relaxation of immigration laws.
 - An increase in the legal duration of patents.**
 - A decrease in the money supply.
 - An increase of taxes on capital gains.
 - An increase in government spending.



28. Which of the following events CANNOT generate the graph above, in which both the short-run Phillips Curve (SRPC) and the long-run Phillips Curve (LRPC) shift from position 1 to position 2?

- The government increases the minimum wage
- In order to make the workers more productive, firms increase the efficiency wage even higher.
- Consumers become more confident about the economy and increase their spending.**
- An increasing number of workers quit their current jobs and try to look for better jobs
- The government decides to increase the unemployment compensation paid to unemployed workers.

29. Which of the following statements is CORRECT?

- By the definition of adverse selection, a bad driver is more likely to apply for car insurance than a good driver.**
- One implication of the efficient markets hypothesis is that stock prices should be predictable from available information
- A risk averse person will never buy a risky asset.
- Since high risk can bring high reward, people always prefer to hold those assets with higher risk rather than those with lower risk
- None of the above

30. Sue is trying to decide whether or not to purchase an Econobond. Econobonds pay 2 fixed payments of \$50, with the first payment coming one year after purchasing the bond and the 2nd payment 2 years after purchase. Which statement is CORRECT?
- If the interest rate is 5% per year, then the market price of an Econobond is greater than \$100.
 - If the interest rate is 5% per year, then the present value of an Econobond is less than \$100.**
 - If the interest rate increases to 10% per year from 5% per year, the market price of an Econobond will not change.
 - If the interest rate falls to 2% per year from 5% per year, then the present value of an Econobond falls.
 - None of the above
31. Which of the following statements about monetary policy is NOT correct?
- If the Fed increases the money supply at an annual rate that is 2 percentage points faster than real GDP is growing, inflation in the long run will be two percent per year.
 - The Fed can increase the money supply by setting a lower discount rate
 - The Fed can increase the money supply by buying bonds in the open market
 - If the Fed increases the reserve requirement, leaves the discount rate unchanged, and does not conduct open market operations, the quantity of reserves in commercial banks will increase.**
 - None of the above; that is, all of the above statements are correct.
32. How did macroeconomic fluctuations in the second half of the 20th century compare to those in the 1st half of the 20th century?
- Fluctuations were larger and more frequent in the 1st half than in the 2nd half.**
 - Fluctuations were larger but less frequent in the 1st half than in the 2nd half.
 - Fluctuations were smaller but more frequent in the 1st half than in the 2nd half.
 - Fluctuations were smaller and less frequent in the 1st half than in the 2nd half.
 - Fluctuations were about the same in both size and frequency, in both halves of the 20th century.

33. How do U.S. GDP growth and employment changes compare in times when the trade deficit is getting larger and times when it is getting smaller?
- GDP and employment both tend to grow faster when the trade deficit is getting smaller than when it is getting larger.
 - GDP tends to grow faster, but employment tends to grow more slowly, when the trade deficit is getting smaller than when it is getting larger.
 - GDP tends to grow more slowly, but employment tends to grow faster, when the trade deficit is getting smaller than when it is getting larger.
 - GDP and employment both tend to grow more slowly, when the trade deficit is getting smaller than when it is getting larger.**
 - Changes in the trade deficit are unrelated to the growth of GDP and employment.
34. Why does the Alternative Minimum Tax need to be fixed?
- Because its purpose is to provide tax loopholes for wealthy taxpayers.
 - Because it is indexed to inflation and therefore is beginning to hit more middle-income households.
 - Because it is not indexed to inflation and therefore is beginning to hit more middle-income households.**
 - Because it is indexed to inflation and therefore is being paid by fewer and fewer taxpayers.
 - Because it is not indexed to inflation and therefore is being paid by fewer and fewer taxpayers.
35. In an assigned article in the Wall Street Journal, economist Michael Spence argued that the globalized economy matters for the growth of developing countries? In what direction, and why?
- Globalization helps the growth of developing countries by providing greater demand for what they produce than their own consumers could buy.**
 - Globalization hurts the growth of developing countries by making their savings and investment more risky.
 - Globalization helps the growth of developing countries by encouraging rich-country consumers to make charitable contributions to the developing-country poor.
 - Globalization hurts the growth of developing countries by depriving them of the most advanced technologies.
 - Globalization helps developing countries in the short run but hurts them in the long run, as they borrow to finance investment but then sink further and further into debt.

36. How did the U.S. trade deficit or surplus in 2006 compare to previous years?
- In 2006 the U.S. had a trade surplus that was larger than in the five previous years.
 - In 2006 the U.S. had a trade surplus for the first time in five years.
 - In 2006 the U.S. had a trade deficit for the first time in five years.
 - In 2006 the U.S. had a trade deficit, but it was smaller than in each of the five previous years.
 - In 2006 the U.S. had a trade deficit that was larger than in each of the five previous years.**
37. A “leading indicator” is
- A piece of economic data that typically changes before a change in GDP, helping analysts to forecast changes in GDP.**
 - A government official who directs economic policy on behalf of the President.
 - A newsletter published in Washington D.C. that reports expectations of inflation and unemployment.
 - The portion of the government budget that must be financed before the Congress can engage in discretionary spending.
 - A country whose macroeconomic policies tend to be imitated, after a time lag, by other countries.
38. Of the manufacturing, construction, and service sectors, which did and which did not post increases in employment in March 2007 compared to February 2007?
- Employment in all three expanded.
 - Employment fell in manufacturing but expanded in the other two.**
 - Employment fell in construction but expanded in the other two.
 - Employment fell in services but expanded in the other two.
 - Employment fell in all three sectors.
39. “Constant returns to scale” means that
- The interest rate on a bond, once issued, does not change.
 - The interest payments on a bond, once issued, do not change.
 - If all inputs (factors) into the production function are doubled, output will also be doubled.**
 - If the money supply is doubled, the price level will also double.
 - The size of the economy always reverts, in the long run, to the natural rate of output.

Part 2: Short Answers

1. Suppose the U.S. government implements the following fiscal policy: Return \$10 billion of tax revenue to households, but hold constant the amount of government spending. Answer the following questions.

a) Use the AS-AD model along with the money market to determine both the short-run and long-run effects on GDP, consumption and investment. Be sure to show each step and draw appropriately labeled diagrams. Answers without supporting argument will not be given any credit. (6 points)

	Y	C	I
Short run	+	+	-
Long run	0	+	-

Ans: The reduction in tax payment increases disposable income, which in turn increases consumption causing the AD curve to shift to the right. Therefore, Y and C increase in the short run. The increase in price level causes a rise in money demand, which increases the interest rate causing I to fall in the short run. In the long run, Y returns to its natural rate, but the lower tax payment still causes C to remain above its initial equilibrium. As a result, I must remain below its initial equilibrium.

b) Is the tax policy expansionary or contractionary? If it is expansionary, does it crowd out investment like an increase in government spending would? If it is contractionary, does it crowd in investment (i.e., increase investment) like a decrease in government spending would? (2 points)

Ans: The tax policy is expansionary and crowds out investment in both the short run and long run.

c) Use the Phillips curve to show the short-run effects of this policy on inflation. Be sure to show each step and draw appropriately labeled diagrams. Answers without supporting argument will not be given any credit. (2 points)

	π
Short run	+

Ans: In the short run, the shift in the AD curve causes a movement along the SRAS curve. Therefore, we move along the SRPC to a higher inflation and lower unemployment.

2. Art Vandelay is an Importer/Exporter. He thrives on finding cross-national arbitrage opportunities, meaning he buys stuff cheaply and sells the same stuff for more money elsewhere. He's hired you to help him expand his line of business. Art thinks that there is money to be made in the "Puffy Shirt" market. (Answers without supporting argument will not be given any credit.)

a) (3 points) While Puffy Shirts sell for \$25 in the US, they sell for 75 Pesos in Mexico. Assume that it costs 0 dollars to transport Puffy Shirts between the U.S. and Mexico. What would the nominal exchange rate have to be in order for Art Vandelay NOT to be able to make a profit buying puffy shirts in either country and selling them in the other? (Be sure to specify the units of the nominal exchange rate you compute.)

$$P_{US} = P = \$25 \quad P_{MEX} = P^* = 75 \text{ Pesos}$$

(1 points) No profit if the real price is the same, Real Price = $e P/P^*$

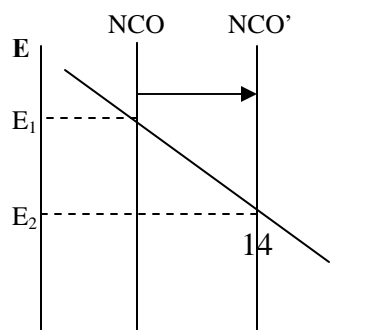
(1 points) Thus Real Price (how many Puffy shirts in Mexico you can buy with a Puffy shirt in US) should be 1.

$$(1 \text{ points}) 1 = e \times \$US 25 / 75 \text{ Pesos} = e \times \$1/3 \text{ Pesos}$$

$$\rightarrow e = 3 \text{ Pesos} / 1 \text{ US } \$$$

b) (7 points) Now, suppose that the nominal exchange rate is such that it IS profitable for Art to export Puffy Shirts from the US to Mexico. Art reads in the WSJ that US net capital outflow (NCO) will soon increase. Assuming NCO does increase, how will this affect Art's profits? Assume Puffy Shirt prices remain fixed in both countries, and use an appropriately labeled graph in your answer.

(2 Points) The real exchange rate will fall.



(3 Points) Art's profits will increase.

If Art is buying Puffy shirts in the US and selling them in Mexico, the Real Price (the real exchange rate for Puffy shirts) must be below 1 Mexican Shirt per American Shirt. For example, E could be $\frac{1}{2}$, which would imply that every Mexican shirt he buys, he could afford two American shirts. If NCO increases, E falls, say to $\frac{1}{4}$. At the new real exchange rate, American Puffy shirts are even cheaper, thus increasing his profits.