

Macroeconomics, Spring 2011, Exam 3, several versions

Read these Instructions carefully! You must follow them exactly!

I) Answer on your Scantron card, using a #2 pencil.

Warning: SOME QUESTIONS MUST BE ANSWERED SEVERAL TIMES! Such questions will begin with a phrase such as this:

(Repeat answer on Scantron lines 37, 38 and 39)

---Remember to do it!

II) On your Scantron card you must print three things:

1) Print your full name clearly;

2) Print the day and time of your section (for example TTh 7 AM);

3) Near your name, print your test number from the upper right corner of this test.

(This number tells me which version of the test you have. Without it your test cannot be graded properly and you get no credit for your answers.)

III) You must turn in this printed exam along with your Scantron card, otherwise your score on this exam is "F".

Questions:

- _____ 1. **(Repeat your answer on Scantron lines 29 and 30.)** The so-called “Second Welfare Theorem” as discussed in lecture tells us that
- under certain conditions, and if it is done properly, it is possible to redistribute income in a desirable way without upsetting the efficiency which is possible under the First Welfare Theorem.
 - economic efficiency can also be achieved if there are power structures in the economy (so all associations are not voluntary), which would violate the assumptions of the First Welfare Theorem.
 - the difficulties created by so-called public goods and by positive and negative externalities must be dealt with or the First Welfare Theorem becomes false.
 - the highest level of economic welfare is impossible unless all associations are voluntary.
 - the level of welfare achievable under the “First Welfare Theorem”, which applies only to capitalism, can also be achieved under socialism.
- _____ 2. Which of the following groups typically experience the highest rate of unemployment?
- Hispanics
 - Female senior citizens
 - Male senior citizens
 - White teenagers
 - Black teenagers
- _____ 3. Unemployment rates in many continental European countries have been consistently higher compared to the United States. The difference is mostly
- due to differing monetary policies
 - cyclical unemployment
 - frictional unemployment
 - structural unemployment
 - seasonal unemployment
- _____ 4. **(Repeat your answer on Scantron lines 31 and 32.)** Using the table below, calculate GDP for a particular year.

Wages and salaries	\$2,000
Government purchases of goods and services	\$ 500
Exports	\$ 800
Rental income	\$ 300
Consumption spending	\$3,000
Transfer payments	\$ 300
Private investment spending	\$ 600
Profit	\$1,200
Imports	\$ 600
Interest income	\$ 800
Purchases of corporate stock	\$ 500

Based on the above information, GDP in this year was

- \$4,100
- \$4,300
- \$4,400
- \$4,600
- \$4,900

$$Y = \left(\frac{1}{1-c(1-t)+w} \right) (a + I_g + G - cT_f + X)$$

- _____ 5. (You may refer to the equation above.) In the Keynesian multiplier model, if exports rise by \$50 billion per year and government spending declines by \$80 billion per year the economy will
- expand
 - not change
 - may expand or contract
 - contract
- _____ 6. **(Repeat your answer on Scantron line 33.)** Evaluate the following statements about real and nominal interest rates and then select the best answer from among A through E.
- Nominal interest rates are very low interest rates, so low they are nominal.
 - Real interest rates plus the expected inflation rate equals the nominal interest rate.
 - Nominal interest rate plus the expected inflation rate equals the real interest rate.
 - The nominal interest rate is the interest rate actually observed in a financial market.
 - The real interest rate is the nominal interest rate adjusted for expected inflation.
- Statements 2, 4 and 5 are correct, statements 1 and 3 are wrong.
 - Statements 1, 2, 4 and 5 are correct, statement 3 is wrong.
 - Statements 2, 3 and 5 are correct, statements 1 and 4 are wrong.
 - Statements 1, 4 and 5 are correct and all the others are wrong.
 - Statements 1, 3, 4 and 5 are the only ones which are correct.
- _____ 7. **(Repeat your answer on Scantron line 34.)** If people used to expect prices to rise at 2% per year, but expected inflation recently has risen to 7% per year,
- nominal interest rates will increase by exactly 3 percentage points, but real interest rates will not be affected very much in the long run.
 - interest rates will decline, since purchasing power now is eroding much faster than before.
 - there is no way to know whether wealth will be redistributed in haphazard ways, since

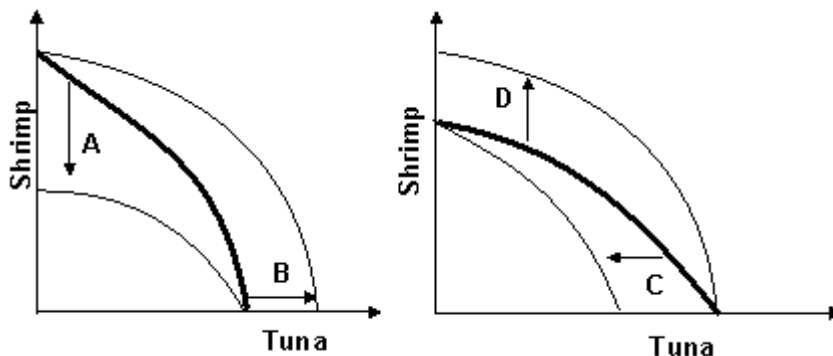
- wealth is only redistributed if actual inflation is different from expected inflation.
- d. nominal interest rates will be affected far less than real interest rates, which will increase.
 - e. no other answer is correct.

8. **(Repeat your answer on Scantron lines 35 and 36.)** Your instructor probably believes the following:
- 1) As a general rule, the government should not borrow money to pay for current consumption expenditures, and instead should pay for them with taxes.
 - 2) As a general rule the government should not borrow money to fight a war, and instead should pay for them with taxes.
- a. 1 and 2 are both true.
 - b. 1 and 2 are both false
 - c. Only statement 1 is true.
 - d. Only statement 2 is true.

Equation for the Money Supply

$$M_S = (C_T + T_f + L_f) \frac{\left(1 + \frac{1}{r_{cd}}\right)}{\left(1 + \frac{x_d}{r_{cd}} + \frac{x_t}{r_{ct}}\right)}$$

9. **(Repeat your answer on Scantron lines 37 and 38.)** In the money supply equation just above, if the "money multiplier" is .60, then if the Fed sells \$5 billion of Treasury bonds and at the same time puts \$5 billion of new currency into circulation, then the money supply will:
- a. increase by \$3 billion.
 - b. increase by \$5 billion.
 - c. increase by \$6 billion
 - d. increase by \$10 billion.
 - e. neither increase nor decrease.



10. Refer to the graph above. Which of the shifts explains what would happen to the production possibility-curve if restrictions on tuna fishing were eliminated?

- a. A
- b. B
- c. C
- d. D

- _____ 11. **(Repeat your answer on Scantron lines 39 and 40.)** If the economy is in full employment equilibrium, and the money supply is increased 12%, then we expect:
- a. the economy to grow.
 - b. prices to rise by more than 12%
 - c. prices to rise 12%
 - d. prices to rise by less than 12%
 - e. nothing will happen
- _____ 12. **(Repeat your answer on Scantron lines 41 and 42.)** Based on the text, which of the following answers contains the most dates of recessions every one of which was triggered in part by oil price increases.
- a. 1970 1974 1980 1990
 - b. 1974 1980 1990
 - c. 1974 1980 1981-82 1990
 - d. 1974 1980 1990 2008
 - e. 1970 1974 1980 1981-82 1990 2001
- _____ 13. In the language of economists, “full employment” means
- a. the situation in which seasonal plus frictional plus structural unemployment equal zero.
 - b. none of the other answers is correct.
 - c. the situation in which cyclical unemployment is zero.
 - d. everyone has a job who wants a job.
 - e. an unemployment rate of zero percent unemployed.
- _____ 14. Which of the following statements about measuring prices are true?
- 1) If my "base year basket" costs \$30,000 to purchase this year, and three years from now it costs \$33,000 to purchase the same base year basket, then the price index based on this basket will tell you that prices have risen by 10%.
 - 2) If the cost of my base year basket has risen by 10%, then the cost of your base year basket has also risen by 10%.
 - 3) A new base year basket must be calculated every few years, otherwise inflation starts looking lower than it really is.
 - 4) If a good rises in price and also in quality, calculated inflation will be lower than actual inflation.
- a. All the above statements are correct.
 - b. Only statements 1 and 2 are correct.
 - c. None of these statements are correct.
 - d. Only statement 1 is correct.
 - e. Only statements 1 and 3 are correct.

Keynesian Model:

$$Y = \left(\frac{1}{1-c(1-t)+z} \right) (a + I_g + G - cT_p + X)$$

- _____ 15. **(Repeat your answer on Scantron line 43.)** Using the Keynesian model as developed in recent lectures, if "the multiplier" = 2, gross investment, I_g , increases by \$15 billion, exports, X, increase by \$5 billion, and government spending, G, drops by \$10 billion, then economic activity, Y, will
- remain unchanged.
 - decrease by \$20 billion.
 - decrease by \$10 billion.
 - increase by \$20 billion.
 - no other answer is correct.
- _____ 16. **(Repeat your answer on Scantron line 44.)** Here is a Keynesian model question: Assume government tax revenues come entirely from taxes similar to "property taxes" (not at all from revenue sources which vary with income); also assume the $MPC = .9$; also assume the "marginal propensity to import" = .1. If local governments **cut property taxes by \$10 billion dollars**, and no other variables change, then:
- economic activity will decrease by \$9 billion
 - economic activity will increase by \$9 billion
 - economic activity will be unchanged, or will change, but not by an amount listed in the other answers.
 - economic activity will decrease by \$45 billion
 - economic activity will increase by \$45 billion
- _____ 17. **(Repeat your answer on Scantron line 45.)** (You may refer to the equation above.) In the Keynesian multiplier model, if the marginal propensity to consume falls, the economy will
- expand
 - contract
 - not change
 - may either expand or contract

Equation for the Money Supply

$$M_s = (C_T + T_f + L_f) \frac{\left(1 + \frac{1}{r_{cd}}\right)}{\left(1 + \frac{x_d}{r_{cd}} + \frac{x_t}{r_{ct}}\right)}$$

- _____ 18. **(Repeat your answer on Scantron lines 46 and 47.)** To increase the money supply, evaluate the following statements and then select the best answer from among A through E. You may use the equation shown just above to jog your memory.
- The FED may lower the reserve requirement on CDs (certificates of deposit).
 - The FED may lower the reserve requirement on DDs (demand deposits).
 - The FED may sell government bonds.
 - The FED may lend reserves to commercial banks through the discount window.
 - The FED may lower the federal funds rate.
 - The FED may arrange with the National Mint to print and then spend currency, thereby increasing the amount of currency in circulation.

- a. Statement 3 is correct.
 - b. Statements 1, 2, 4, 5 and 6 are correct and not Statement 3.
 - c. Statements 2, 4, 5 and 6 are correct and not Statement 1.
 - d. Statements 1, 2, 4 and 5 are correct and not Statements 3 or 6.
 - e. Statements 1, 2, 3, 4 and 5 are correct, but not Statement 6.
- _____ 19. In the money supply equation just above, if the "money multiplier" is **.60**, then if the Fed **sells \$3 billion of Treasury bonds**, the money supply will:
- a. increase by \$3 billion.
 - b. increase by \$1.8 billion.
 - c. decrease by \$3 billion
 - d. decrease by \$1.8 billion.
 - e. decrease by \$5 billion.
- _____ 20. Which of the following would be counted in U.S. GDP?
- a. the purchase of an old house
 - b. the purchase of a new textbook
 - c. the purchase of a \$1,000 government savings bond
 - d. washing your car in the driveway
 - e. the purchase of 50 shares of IBM stock
- _____ 21. The largest component of GDP is
- a. tax revenue
 - b. government purchases of goods and services
 - c. the nation's capital stock
 - d. private investment spending
 - e. private consumption expenditures
- _____ 22. Which of the following describes the relationship between net investment and total investment?
- a. Net investment = total investment - depreciation
 - b. Total investment = net investment + private investment - depreciation
 - c. Net investment = government investment - private investment - depreciation
 - d. Total investment = net investment - depreciation
 - e. Net investment = government investment - depreciation
- _____ 23. *Transfer payments* are
- a. payments for goods or services that individuals provide
 - b. funds given to people or organizations when no good or service is received in exchange
 - c. included in the government purchases category of GDP
 - d. examples of government investment
 - e. used to pay state employees
- _____ 24. Which of the following properly matches the owner of a resource with the corresponding payment?
- a. Land owners and rent
 - b. Entrepreneurs and interest payments
 - c. Laborers and profit
 - d. Entrepreneurs and rent
 - e. Capitalists and salaries
- _____ 25. Real GDP is calculated because
- a. it is a much better measure of economic behavior than nominal GDP
 - b. the value of the dollar is increasing
 - c. it allows us to make comparisons between countries
 - d. nominal GDP has no theoretical foundation
 - e. nominal GDP is corrected for inflation

- _____ 26. **(Repeat your answer on Scantron line 48.)** In an economy with 4,000 unemployed people and 8,000 employed people, the unemployment rate is
- 50.0 percent
 - 40.0 percent
 - 33.3 percent
 - 60.0 percent
 - 25.0 percent
- _____ 27. The Fed's goal is
- moderate and stable inflation
 - zero inflation
 - a low price level
 - an inflation rate that diminishes over time
 - low and stable inflation
- _____ 28. **(Repeat your answer on Scantron lines 49 and 50.)** Assume that the Fed is successful in keeping the money supply constant, and suppose the economy is in an unemployment equilibrium. Earlier in the semester we “learned” that if government spending is increased, or taxes are cut, there will be no change in total economic activity, only interest rates will rise. But in that reasoning we left out an important fact, namely: when interest rates rise, this causes the demand for money to decline. Now my question to you is this: If you take that additional fact into account, then:
- a tax cut will increase economic activity, but an increase in government spending will not.
 - an increase in government spending will increase economic activity, but a tax cut will not.
 - an increase in government spending (or a tax cut) will increase economic activity.
 - an increase in government spending (or a tax cut) will reduce economic activity.
 - an increase in government spending (or a tax cut) still leave total economic activity unchanged, since the supply of money is still being held constant.

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Answer Section

MULTIPLE CHOICE

1. ANS: A PTS: 1
2. ANS: E PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
3. ANS: D PTS: 1 LOC: Unemployment and inflation
4. ANS: B PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
5. ANS: D PTS: 1
6. ANS: A PTS: 1
7. ANS: C PTS: 1
8. ANS: C PTS: 1
9. ANS: E PTS: 1
10. ANS: B PTS: 1
11. ANS: C PTS: 1
12. ANS: D PTS: 1
13. ANS: C PTS: 1
14. ANS: D PTS: 1
15. ANS: D PTS: 1
16. ANS: E PTS: 1
17. ANS: B
Refer To: Keynesian Multiplier Equation

PTS: 1
18. ANS: B
Refer To: The Money Supply Equation, with Time Dep

PTS: 1
19. ANS: D
Refer To: The Money Supply Equation, with Time Dep

PTS: 1
20. ANS: B PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
21. ANS: E PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
22. ANS: A PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
23. ANS: B PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
24. ANS: A PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
25. ANS: A PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation

26. ANS: C PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
27. ANS: E PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Monetary and fiscal policy
28. ANS: C PTS: 1