Macroeconomics, Fall 2010, Exam 3 (All chapters, lectures and homework), several versions

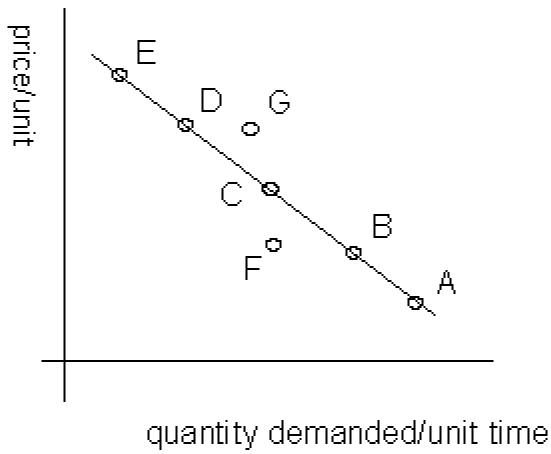
Read these Instructions carefully! You must follow them exactly!
I) Answer on your Scantron card, using a #2 pencil.
Warning: SOME QUESTIONS MUST BE ANSWERED SEVERAL TIMES! Such questions will begin with a phrase such as this:
(Repeat answer on Scantron lines 37, 38 and 39)
---Remember to do it!
II) On your Scantron card you <u>must</u> print three things:
1) Your full name clearly;
2) The day and time of your section (for example TTh 9:10 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".

<u>Questions:</u>

____ 1. Choose the *best* answer. An example of "derived demand" is
a. the demand curve you are able to derive from analysis of the impact of own price on the demand for a product.
b. an increase in the demand for nails because of an increase in the demand for new houses.
c. an increase in the supply of dog food in response to an increase in the number of families who have dogs as pets.
d. none of the other answers.
e. the increased demand for oranges caused by a rise in the price of a substitute such as apples.

____ 2. **<u>(Repeat your answer on Scantron line 27.)</u>** By the definition given in lecture, a model is
a. an abstract representation of reality.
b. logical structure and collection of ideas for thinking about a problem or answering a question
c. never good enough, since it must be accurate, timely and inexpensive and easy to use--an impossibility.
d. best if it is as realistic as possible.
e. no other answer is the best one.

____ 3. What is the difference between nominal and real GDP?
a. Nominal GDP is adjusted for changes in the price level; real GDP is not.
b. Real GDP is adjusted for taxes and transfer payments; nominal GDP is not.
c. Real GDP is adjusted for changes in the price level; nominal GDP is not.
d. Nominal GDP is adjusted for depreciation; real GDP is not.
e. Real GDP is adjusted for depreciation; nominal GDP is not.



____ 4. (Repeat your answer on Scantron lines 41, 42 and 43.) Refer to the graph above. Evaluate statements 1 through 4 and then select the answer from A) through E):

1) Moving from point E to point F is accompanied by an increase in demand.
2) Moving from point E to point F is accompanied by a decrease in demand.
3) Moving from point E to point C is accompanied by no change in demand.
4) Moving from point E to point C is accompanied by an increase in demand.

a. Only statements 1 and 4 are true.
b. Only statement 1 is true.
c. Only statement 4 is true.
d. Only statements 2 and 3 are true.
e. None of these statements are true because all of these moves actually are changes in quantity demanded, not changes in demand..

____ 5. **<u>(Repeat your answer on Scantron lins 28 and 29.)</u>** Using the table below, calculate GDP for a particular year.

Consumption spending	$1,000
Wages and salaries	$ 800
Rent	$ 100
Government purchases	$ 200
Profit	$ 300
Exports	$ 400
Interest	$ 250
Private investment spending	$ 400
Imports	$ 550

Based on the above information, GDP in this year was

a. $1,450
b. $2,000
c. $2,550
d. $2,900
e. $4,000

____ 6. **<u>(Repeat your answer on Scantron line 30</u>.)** Which of the following statements about measuring prices are true?

1) If my "base year basket" costs $1,000 to purchase this year, and one year from now it costs $1,200 to purchase the same base year basket, then the price index based on this basket tells you that prices have risen by 10%.
2) If dingbats are one of the goods in the base year basket, and 30% of the base year budget was spent on dingbats, and in some future year all prices are unchanged except the price of dingbats has increased by 20%, then the price index will have risen by roughly 6%.
3) Suppose people are now purchasing more computers and fewer typewriters than in the base year, however we are still using the base year basket to calculate inflation. Suppose also that type-writer prices have been rising and computer prices have been falling. Then the computed price index will show less inflation than actually exists.

a. All the above statements are correct.
b. Only statement 1 is correct.
c. Only statement 2 is correct.
d. Only statement 3 is correct.
e. Only statements 2 and 3 are correct.

____ 7. **(Repeat your answer on Scantron line 31.)** Which of the following is a potential cause of a recession or depression?

a. unexpected and large declines in profits for large sectors of the economy.
b. foolish mistakes of monetary or fiscal policy, for example sharp slowdown of money supply growth, a large tax increase, or a large reduction in government spending.
c. downward sticky wages and prices.
d. A and C, but not B
e. A, B and C.

____ 8. **(Repeat your answer on Scantron line 32.)** Based on lecture, we would say the following about the causes of recessions and booms of the economy

1. Recessions are caused by economic shocks.
2. Financial crises, rises in the price of oil and declines in defense spending have triggered most of the recessions since 1950.
3. The recent recession which began in 2001 was triggered by a slowdown in the technology sector made worse by the destruction of the World Trade Center, and were not triggered by a large increase in interest rates.

a. all three statements are correct.
b. Only statements 1 and 2 are correct.
c. Only statements 1 and 3 are correct.
d. Only statements 2 and 3 are correct.
e. Only statement 1 is correct.

____ 9. **(Repeat your answer on Scantron lines 33 and 34.)** Assume an economy has a natural rate of unemployment of about 5%, which means that unemployment cannot be lower than 5% without creating inflation. Assume the economy is in macroeconomic equilibrium with 10% unemployment. If the Federal Reserve increases the money supply by 15% then roughly the following will happen:

a. the economy will grow to full employment and prices will rise by 15%.
b. employment will remain stagnant and prices will rise by 15%
c. employment will rise by 15% and prices will not rise.
d. prices will decline and the economy will grow by 10%.
e. the economy will grow to full employment and prices will rise by 10%.

____ 10. Considering "unemployment",

a. all other choices are are true, except “none of the other choices is true”.

b. an individual is defined as "unemployed" if the person is not currently employed, not on temporary layoff, and searched for work during the past four weeks.
c. according to the text, cyclical unemployment is the only type which macroeconomics can help to explain.
d. "full employment" occurs when cyclical unemployment is zero, even if structural, seasonal and frictional unemployment are substantial.
e. none of the other choices is true.

____ 11. **<u>(Repeat your answer on Scantron line 35.)</u>** In the "circular flow model" of a macro economy, "macroeconomic equilibrium" is said to exist:
a. if the population is neither growing nor shrinking.
b. if savings are large enough that the financial sector can lend money.
c. if the money supply is stable.
d. if each major group in the economy (for example households and firms) receives the same amount each time period and also spends the same amount each time period.
e. none of the other answers.

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

____ 12. **<u>(Repeat your answer on Scantron line 36.</u>)** (You may refer to the equation above.) In the Keynesian multiplier model, if the marginal propensity to consume falls, the economy will
a. expand
b. contract
c. not change
d. may either expand or contract

____ 13. **<u>(Repeat your answer on Scantron line 37</u>.)** Consider the following statements about inflation, expected inflation and interest rates.
a. If actual inflation turns out lower than was expected at the time the loan was made, the lender loses and the borrower benefits.
b. if the expected inflation rate for the coming year rises from 3 percent to 6 percent, but the Fed prevents nominal interest rates from rising, then the real interest rate must have risen.
c. if the real interest rate is 10% for a 4 year auto loan, and expected inflation for the next four years is 5% per year, then auto loans will have an interest rate of 15%.
d. the real interest rate plus the nominal interest rate equals the expected rate of inflation.
e. none of the other answers is correct.

____ 14. **<u>(Repeat your answer on Scantron line 38</u>.)** It is difficult to know exactly how much the cost of living has actually changed in a modern economy because, for example,
a. if the base year market basket becomes out of date, and the prices of the new goods are rising more slowly than the prices of those in the base year basket, calculated inflation will be higher than the actual rise in the cost of living.
b. since many goods are becoming more reliable at the same time their prices are rising, calculated inflation tends to be lower than actual inflation.
c. since people tend to buy fewer units of the goods whose prices rise relatively fast, this “substitution effect” means that actual cost of living change is lower than the calculated inflation rate.

d. exactly three other answers are correct.
e. exactly two other answers are correct.

Recall:
FR = IR * (FN/IN)*(IP/FP)

____ 15. **(Repeat your answer on Scantron line 39.)** Between 1960 and 1983 the price index rises from 80 to 120. Over the same period your nominal wage rises from $10/hour to $12/ hour. Assume your real wage was $20 in 1960. Then in 1983 your real wage becomes:
a. $16
b. $11.11
c. $36
d. $20
e. $24

____ 16. **(Repeat your answer on Scantron line 40.)** Since the Federal Reserve Banking Act of 1978, what has been the Fed's chief responsibility?
a. Encouraging investment
b. Regulating foreign trade
c. Minimizing the interest payments on the national debt
d. Achieving a low and stable rate of inflation
e. Keeping the interest rate low.

Equation for the Money Supply

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

____ 17. **(Repeat your answer on Scantron line 41.)** In the money supply equation just above, if the "money multi-plier" (the complicated fraction which has rcd, xt, etc in it) 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.

____ 18. Refer to the above equation for the money supply. Assume the following: 1) that changes in interest rates do not significantly alter the public's desired ratios of currency to demand deposits and currency to time depos-its; 2) the Fed does not change any of the variables over which it exercises control; 3) the demand for money is inversely related to interest rates (interest rates up causes demand for money to fall). Then, an increase in government spending or a reduction in taxes
a. will increase interest rates and have no impact on economic activity.

b. will increase economic activity because under these assumptions interest rates will not change and so the Keynesian model gives accurate predictions.
c. will result in both an increase in interest rates and also an increase in prices and/or economic activity (the latter because of an excess supply of money).
d. will reduce interest rates and have no impact on economic activity.
e. will actually reduce economic activity because the rise in interest rates will reduce borrowing and therefore spending.

____ 19. Suppose that just as the U.S. economy is heading into a recession, two major U.S. banks fail. Many citizens lose access to their checking accounts for several weeks. Also assume the Fed stupidly does nothing. Evaluate each of the following statements and select the best answer. (Refer to the money supply equation given just above if this helps you.)

1) Reserve requirements on demand deposits and time deposits will increase because many citizens now will be afraid their bank might fail.

2) sd and st in the equation will increase because many bankers now are afraid citizens will withdraw cash from the banks..

3) the public's desired ratios of currency to demand deposits, and currency to time deposits, will decline.

a. all three statements are correct.
b. all three statements are false.
c. only statement 2 is correct.
d. only statement 3 is correct.
e. only statements 1 and 3 are correct.

____ 20. **(<u>Repeat your answer on Scantron line 42</u>.)** 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 may cause the demand for money to decline. Now my question to you is this: If you take this one additional "fact" into account,

a. a tax cut will increase economic activity, but an increase in government spending will not.
b. an increase in government spending will increase economic activity, but a tax cut will not.
c. either a tax cut or an increase in government spending will increase economic activity.
d. either a tax cut or an increase in government spending will reduce economic activity.
e. either a tax cut or an increase in government spending will still leave total economic activity unchanged.

____ 21. **(<u>Repeat your answer on Scantron line 43</u>.)** If people used to expect prices to rise at 2% per year, but expected inflation recently has risen to 7% per year,

a. nominal interest rates will increase by exactly 3 percentage points, but real interest rates will not be affected very much in the long run.
b. interest rates will decline, since purchasing power now is eroding much faster than before.
c. 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.

____ 22. **<u>(Repeat your answer on Scantron line 44.)</u>** Based on information presented in the text, since 1900 the annual inflation rate in the US

a. none of the other answers are right.
b. averaged about zero to 1940 and since then has been positive most years and averaged roughly 2-5% per year.
c. has averaged about 8% per year.
d. has been above 10% per year for more than 30 of those 100+ years.
e. two of the other choices are correct.

____ 23. **<u>(Repeat your answer on Scantron line 45.)</u>** Choose the most complete answer. The equation $i_N = r + e_i$ (which tells us about the relationship between nominal and real interest rates) tells us:
a. If the expected rate of inflation goes down and nominal interest rates are unchanged then real interest rates must have gone up.
b. If the expected rate of inflation goes down and real interest rates are unchanged then nominal interest rates must have gone up.
c. If the expected rate of inflation goes down and real interest rates are unchanged then nominal interest rates must have gone down.
d. Both A and B are true.
e. Both A and C are true.

____ 24. **<u>(Repeat your answer on Scantron lines 46 and 47.)</u>** If "the multiplier" is 2, and "autonomous expenditures" decline by $100 billion, and assumptions of the Keynesian multiplier model are valid, then economic activity (GDP) will:
a. increase by $50 billion.
b. increase by $200 billion.
c. decrease by $50 billion.
d. decrease by $200 billion.
e. no other answer is correct.

____ 25. **<u>(Repeat your answer on Scantron line 48.)</u>** Based on the simple circular flow model as presented in recent lectures, if the economy is in an **unemployment equilibrium** (wages and prices are "downward sticky") and the government cuts taxes but the money supply is not permitted to change, evaluate each of the following statements:

1) Inflation definitely will occur because the tax cut leaves more income in the hands of the public, permitting them to increase spending.
2) The economy will definitely be stimulated by the tax cut and begin to recover from the recession.
3) Interest rates will decline and the economy will begin to recover.
4) Interest rates will rise and the economy will begin to recover.
5) Interest rates will rise but the economy will not be stimulated by the tax cut.

Choose the best answer:
a. Statement 2 is correct.
b. Statement 3 is correct.
c. Statements 2 and 4 are correct.
d. Statement 4 is correct.
e. Statement 5 is correct.

Keynesian Model:

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

____ 26. **<u>(Repeat your answer on Scantron lines 49 and 50.)</u>** As we saw in lecture, if the assumptions of the Keynesian model are correct, an increase in G will increase economic activity. However, there are hidden assumptions. What hidden assumptions might make it true?

a. None of the other answers are correct.
b. All the other answers are correct (except of course the one beginning with the word "None").
c. The Fed holds interest rates constant.
d. The Fed permits the private sector to increase or decrease bank reserves and therefore the money supply to accommodate changes in money demand.
e. The marginal propensity to consume, and desired ratios of currency to demand and time deposits, are assumed not to change when interest rates change.

Macroeconomics, Fall 2010, Exam 3 (All chapters, lectures and homework), several versions
Answer Section

MULTIPLE CHOICE

1. ANS: B
Difficulty: Easy

PTS: 1
2. ANS: B
Difficulty: Easy

PTS: 1
3. ANS: C PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
4. ANS: D PTS: 1
5. ANS: A PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Unemployment and inflation
6. ANS: C PTS: 1
7. ANS: E PTS: 1
8. ANS: A PTS: 1
9. ANS: E PTS: 1
10. ANS: A PTS: 1
11. ANS: D
Difficulty: Easy

PTS: 1
12. ANS: B PTS: 1
13. ANS: C PTS: 1
14. ANS: E PTS: 1
15. ANS: A PTS: 1
16. ANS: D PTS: 1 NAT: Financial theories, analysis, reporting, and markets
LOC: Monetary and fiscal policy
17. ANS: E PTS: 1
18. ANS: C PTS: 1
19. ANS: C PTS: 1
20. ANS: C PTS: 1
21. ANS: C PTS: 1
22. ANS: B
Difficulty: Hard

PTS: 1
23. ANS: E PTS: 1
24. ANS: D PTS: 1
25. ANS: E
Reference: The Money Supply Equation, with Time Dep

PTS: 1

26. ANS: B PTS: 1