Macroeconomics, Fall 2010, Final Exam (Chs 1-13, 16 + lectures and homework)

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) 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".**

<u>Questions:</u>
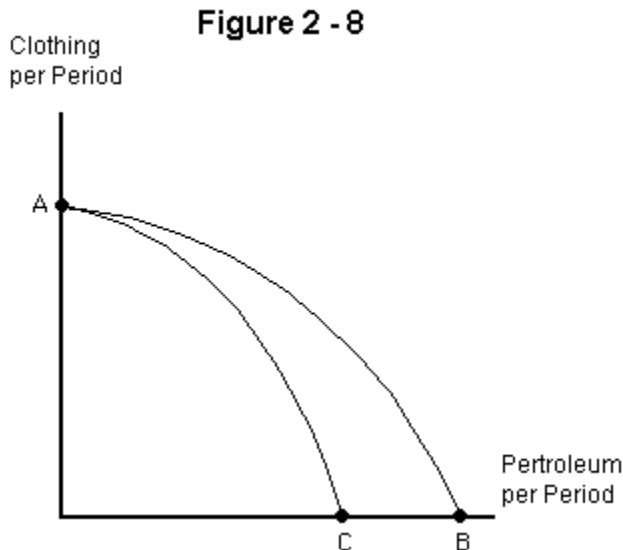
Figure 2 - 8

_____ 1. Which of the following could explain the shift in the production possibilities frontier shown in **Figure 2-8**
       from AC to AB?
       a. technical improvements in both petroleum and clothing production
       b. a productive improvement in clothing production that has no effect on petroleum produc-
           tion
       c. a decrease in the size of the labor force that can produce either petroleum products or
           clothing
       d. major oil reserves in Alaska are declared off-limits to producers in order to protect the en-
           vironment
       e. major oil reserves are discovered off the coast of Africa
_____ 2. Which of the following is the study of what "should be" rather than the study of what "is"?
       a. positive economics

b. law and economics
c. microeconomics
d. development economics
e. normative economics

___ 3. **(Repeat your answer on Scantron line 31.)** Which of the following occurs during an expansion?
a. output rises, employment rises and unemployment falls.
b. output falls, employment rises and unemployment falls.
c. output rises, employment falls and unemployment falls.
d. output rises, employment rises and unemployment rises.

___ 4. Choose the **most complete** 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. the increased demand for oranges caused by a rise in the price of a substitute such as apples.
c. both d) and e) are correct.
d. an increase in the demand for nails because of an increase in the demand for new houses.
e. an increase in the supply of dog food in response to an increase in the number of families who have dogs as pets.

___ 5. **(Repeat your answer on Scantron line 32.)** If the Fed buys Treasury bills (which increases reserves available to the banking system),
a. no answer is any good except this one.
b. either c. or d. is likely to be true, but we don't have enough information to choose between them.
c. the impact on the real economy and/or inflation is likely to be very small, since the classical assumptions are probably fairly realistic.
d. the "fed funds" interest rate will tend to decline in the short run, then the supply of money will tend to rise and the resulting excess supply of money will lead to declining inventories, therefore increasing either economic activity and/or prices.
e. the money supply will actually decline along with the supply of money, leading to a reduction either in economic activity or prices.
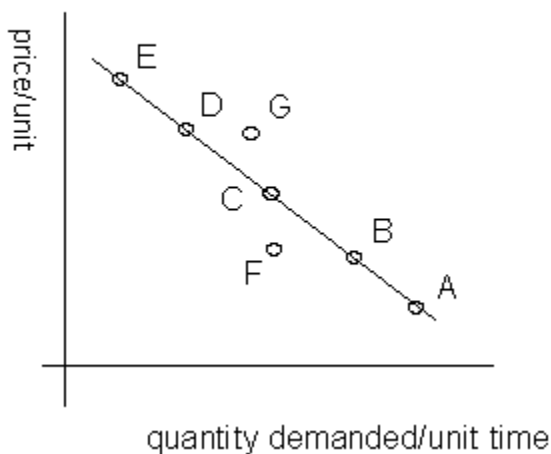
_____ 6. **(Repeat your answer on Scantron line 33.)** Refer to the graph above. Evaluate statements 1 through 4 and then select the answer from A) through E):

    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.

Equation for the Money Supply

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

_____ 7. **(Repeat your answer on Scantron line 34.)** 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 (which are not visible in the equation above) 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.

_____ 8. **(Repeat your answer on Scantron line 35.)** 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 deposits; 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.

____ 9. **(Repeat your answer on Scantron line 36.)** 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 $1,100 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 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 typewriter prices have been rising and computer prices have been falling. Then the computed price index will show more 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.

____ 10. **(Repeat your answer on Scantron line 37.)** Choose the best answer. According to the text, deflation

a. creates difficulties for monetary policy because people would rather hold money, which yields a positive rate of return, than invest in projects, which may drop in value because of the deflation.
b. was very substantial during the first four years of the Great Depression, prices falling 10 percent per year or more.
c. probably created difficulties in Japan during the late 1990s and early 2000s.
d. creates a problem for the Fed, because nominal interest rates cannot be lower than zero and this prevents real interest rates from falling low enough to encourage investment.
e. all the other answers are correct.

____ 11. **(Repeat your answer on Scantron line 38.)** Think about an "experiment" in which the economy begins in a macroeconomic equilibrium, except that the money supply is growing for many years at the rate of 5% per year more than is needed, so prices have been rising at the rate of 5% per year and expected inflation is 5% per year. The economy starts out at full employment and the "real" interest rate, r, is about 4%. Now the experiment begins. Telling nobody, the Fed begins buying government securities more slowly than before, permanently reducing the rate of excessive money growth from 5% per year down to 2% per year. Evaluate the following statements, and then choose the best answer.

1) Even if it was not discussed in lecture, there is no reason to believe a recession will be caused by this experiment, since the money supply is still growing, just at a slower rate.
2) Just before the experiment begins, nominal interest rates will be about 9%.
3) After the experiment begins, there will probably be a long period of time during which lenders become better off while borrowers are becoming worse off.
a. Only statements 1 and 2 are correct.
b. Only statements 2 and 3 are correct.
c. Only statements 3 and 1 are correct.
d. Only one of the statements are correct.
e. None of the statements are correct.

____ 12. The principle of comparative advantage says that
a. every individual should specialize in producing that good for which the absolute cost is the smallest
b. the output of society as a whole will be the greatest if every individual specializes in producing that commodity for which his opportunity cost is the smallest
c. monopoly power is gained by specializing in a large market and reducing costs
d. monopoly power is gained by specializing in a small market and producing a differentiated product
e. your financial investments should be "compared" in a common fashion to determine your maximum advantage

____ 13. **(Repeat your answer on Scantron line 39.)** Sven has a comparative advantage over Alice in cooking but not in doing the laundry. Which of the following must be true?
a. Sven must have an absolute advantage in both cooking and doing the laundry.
b. Sven has a lower opportunity cost in doing the laundry.
c. Sven has an absolute advantage in doing the laundry.
d. Alice must have an absolute advantage in cooking.
e. Sven must have a lower opportunity cost than Alice for cooking.

____ 14. An example of a frictionally unemployed individual is
a. Sylvia, who quit her job to spend more time with her children
b. Rod, the lifeguard, who cannot find a job because the temperature is too low in October
c. Ileana, a college student who quits her job to return to school
d. Steve, an individual does not have skills to keep his job as an aerospace engineer
e. Samantha, who quits her job to look for better one

____ 15. Dennis is an excellent typist. However, because he has been unable to adapt to his company's new computer system, he has lost his job. He is currently seeking another secretarial position, but it is likely that he will have to acquire new skills to become employable as a secretary again. Dennis would best be described as
a. frictionally unemployed
b. seasonally unemployed
c. structurally unemployed
d. cyclically unemployed
e. not in the labor force

____ 16. **(Repeat your answer on Scantron line 40.)** Suppose workers agreed to a contract that guaranteed a real wage increase of 3 percent per year. If the inflation rate was 7 percent over the following year, what is the required increase in the nominal wage to meet the contract requirements?
a. 10 percent
b. 3 percent
c. 4 percent
d. 7 percent

e. 1 percent

17. The index used to translate nominal GDP into real GDP is the
    a. Consumer Price Index
    b. Wholesale Price Index
    c. GDP Price Index
    d. Producer Price Index
    e. Manufacturer's Input Price Index

18. Which of the following statements about unanticipated inflation is true?
    a. It reduces average purchasing power in the economy.
    b. It reduces total purchasing power in the economy.
    c. It redistributes purchasing power in the economy.
    d. It reduces nominal wages.
    e. Its effects are spread evenly throughout the economy so that no one gains or loses from in-flation.

19. **(Repeat your answer on Scantron line 41.)** If inflation is higher than anticipated and benefits are not indexed, which group loses purchasing power?
    a. borrowers and lenders
    b. lenders and retirees
    c. borrowers and retirees
    d. only borrowers
    e. only lenders

20. **(Repeat your answer on Scantron line 42.)** Suppose the nominal interest rate charged is 5 percent and the expected inflation rate is 2 percent. Which of the following is the expected real interest rate?
    a. 2 percent
    b. 5 percent
    c. 7 percent
    d. -3 percent
    e. 3 percent

21. Which of the following is a common reaction to a decrease in the interest rate?
    a. an increase in oil prices.
    b. an expansion.
    c. an increase in spending on new homes.
    d. an increase in military spending.

22. **(Repeat your answer on Scantron line 43.)** In the United States between 1790 and the Civil War, who issued paper currency?
    a. the Federal Reserve System
    b. the U.S. Treasury Department
    c. the U.S. Congress
    d. the British government
    e. private banks

23. **(Repeat your answer on Scantron line 44.)** The organization responsible for creating and regulating the U.S. money supply is
    a. the Department of Commerce
    b. the Council of Economic Advisers
    c. the U.S. Mint
    d. the Federal Reserve System

e.   the Department of the Treasury

____ 24. The standard definition of M1, the definition of money we use in our models, is
a.   currency + checking account balances + saving account balances
b.   currency + checking account balances + travelers' checks
c.   currency + checking account balances + credit cards
d.   currency + credit cards + certificates of deposit
e.   currency only

____ 25. What is the range of the required reserve ratio set by the Fed? It must be somewhere
a.   between 0 and 2
b.   between 0 and 1
c.   between 0 and 100
d.   between 0 and infinity
e.   between 0 and 10

____ 26. **(Repeat your answer on Scantron line 45.)** If people used to expect prices to rise at 2% per year, but expected inflation now has risen to 5% 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.   wealth obviously will be redistributed in haphazard ways, since expected inflation always equals actual inflation--lenders will gain and borrowers will lose.
d.   nominal interest rates will be affected far less than real interest rates, which will increase.
e.   more than one of these answers is correct.

____ 27. **(Repeat your answer on Scantron line 46.)** 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.

Keynesian Model:

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

28. **(Repeat your answer on Scantron line 47.)** Using the Keynesian model as developed in recent lectures, if "the multiplier" = 2; the marginal propensity to consume is .9; gross investment increases by $15 billion; exports increase by $5 billion; government spending drops by $9 billion; and property taxes decline by $10 billion; then economic activity will
   a. remain unchanged or decrease.
   b. increase by more than $40 billion.
   c. increase by somewhere between $10 and $30 billion.
   d. increase by $40 billion.
   e. increase by some other amount.

29. **(Repeat your answer on Scantron line 48.)** (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

Equation for the Money Supply

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

30. **(Repeat your answer on Scantron lines 49 and 50.)** 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.
   1) The FED may lower the reserve requirement on CDs (certificates of deposit).
   2) The FED may lower the reserve requirement on DDs (demand deposits).
   3) The FED may sell government bonds.
   4) The FED may lend reserves to commercial banks through the discount window.
   5) The FED may lower the federal funds rate.
   6) The FED may arrange with the Treasury Department, the National Mint and the Bureau of Engraving and printing, to create currency spend it into circulation, 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.

Macroeconomics, Fall 2010, Final Exam (Chs 1-13, 16 + lectures and homework)
Answer Section

MULTIPLE CHOICE

1. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
   LOC: Scarcity, tradeoffs, and opportunity cost
2. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
   LOC: The study of economics
3. ANS: A   PTS: 1   NAT: financial theories, analysis, reporting, and markets
   LOC: Understanding and applying economic models
4. ANS: D   PTS: 1
5. ANS: D   PTS: 1
6. ANS: D   PTS: 1
7. ANS: C   PTS: 1
8. ANS: C   PTS: 1
9. ANS: A   PTS: 1
10. ANS: E   PTS: 1
11. ANS: B   PTS: 1
12. ANS: B   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Specialization and Exchange
13. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Specialization and Exchange
14. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
15. ANS: C   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
16. ANS: A   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
17. ANS: C   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
18. ANS: C   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
19. ANS: B   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
20. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Unemployment and inflation
21. ANS: C   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Understanding and applying economic models
22. ANS: E   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Monetary and fiscal policy
23. ANS: D   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Monetary and fiscal policy
24. ANS: B   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Monetary and fiscal policy
25. ANS: B   PTS: 1   NAT: financial theories, analysis, reporting, and markets
    LOC: Monetary and fiscal policy

26. ANS: A   PTS: 1
27. ANS: C   PTS: 1
28. ANS: D   PTS: 1
29. ANS: B
    Refer To: Keynesian Multiplier Equation

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

    PTS: 1