Name: $\qquad$
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Date: $\qquad$
Macroeconomics, Spring 2007, Final Exam, several versions, Early May

## Read these Instructions carefully! You must follow them exactly!

I) 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) Print the number I have written in ink on the upper right corner of your copy 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.)
II) 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 your answer on Scantron lines 37, 38 and 39)
---Remember to do it!

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

## Questions:

1. Which of the following has been consistently falling over the past decade as a percentage of GDP?
a. non-military government purchases
b. total government purchases
c. structural government purchases
d. cyclical government. purchases
2. (Repeat your answer on Scantron line 27.) Interest on the federal debt relative to GDP declined in the early 2000s because
a. the Federal Reserve policy kept interest rates higher than in the past
b. the Federal Reserve mandated that much of the interest be forgiven
c. the Federal Reserve policy kept interest rates lower than in the past
d. some debt was paid off as a result of the Clinton administration budget surpluses
e. the Federal Reserve paid off low interest debt by using the proceeds from high interest borrowing
$\qquad$ 3. Government outlays
a. are the same as " $G$ " in the short-run macro model
b. do not include transfer payments
c. are always smaller than government purchases
d. are always greater than government purchases
$\qquad$ 4. (Repeat your answer on Scantron line 28.) Which of the following is currently the largest component of federal transfer payments?
a. income security benefits
b. retirement benefits
c. health benefits such as Medicare
d. government payroll
$\qquad$ 5. (Repeat your answer on Scantron line 29.) Which of the following represent the smallest sources of federal government revenue?
a. personal income and excise taxes
b. excise taxes and social security taxes
c. personal income taxes and social security taxes
d. excise taxes and corporate income taxes
3. The federal government
a. runs a deficit when tax revenues are greater than government purchases
b. runs a surplus when tax revenues are smaller than government purchases
c. runs a deficit when tax revenues are greater than government outlays
d. runs a surplus when tax revenues are greater than government outlays
4. How do changes in the cyclical deficit act as an automatic stabilizer?
a. When a negative spending shock hits the economy, transfer payments fall, and GDP falls by more than it otherwise would have fallen.
b. When a positive spending shock hits the economy, transfer payments rise, and GDP falls by more than it otherwise would have fallen.
c. When a negative spending shock hits the economy, transfer payments rise, and GDP falls by less than it otherwise would have fallen.
d. When a positive spending shock hits the economy, transfer payments rise, and GDP rises by more than it otherwise would have risen.
$\qquad$ 8. (Repeat your answer on Scantron line 30.) 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.
5. 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
6. (Repeat your answer on Scantron line 31.) According to the text (your professor may not agree), which of the following would shift the aggregate demand curve to the left?
a. increases in government purchases, investment spending, autonomous consumption, taxes, or the money supply
b. decreases in government purchases, investment spending, autonomous consumption, or the money supply
c. increases in government purchases, investment spending, autonomous consumption, or the money supply
d. decreases in government purchases, investment spending, autonomous consumption, taxes, or an increase in the money supply
7. (Repeat your answer on Scantron lines 32 and 33.) Which of the following would shift the AS curve downward?
a. a decrease in the price level
b. a decrease in world oil prices
c. an increase in world oil prices
d. a natural disaster that raises unit costs for all firms


Refer to the figure above. Suppose the economy is currently at full employment (Point A) at $\$ 7.0$ trillion when a demand shock decreases real GDP from $\$ 7.0$ to $\$ 6.6$ trillion. In the long run we would expect the
a. aggregate demand curve to shift rightward until the economy returns to full employment at the original price level
b. aggregate supply curve to shift upward until the economy returns to full employment, but at a higher price level
c. aggregate supply curve to shift downward until the economy returns to full employment at a lower price level
d. aggregate demand curve to shift farther leftward because of the multiplier effect
13. (Repeat your answer on Scantron line 34.) Stagflation is caused by
a. a negative supply shock
b. a positive supply shock
c. a negative demand shock
d. a positive demand shock

$$
Y=\left(\frac{1}{1-a(1-f)+\infty}\right)\left(a+I_{g}+G-c T_{f}+X\right)
$$

14. (Repeat your answer on Scantron lines 35 and 36.) (You may refer to the equation above.) Choose the most complete answer. Assume the Keynesian model gives correct answers. Suppose a recession abroad reduces exports by $\$ 100$ billion per year, also gross investment spending in the U.S. declines by $\$ 100$ billion per year, and also an increase in unemployment insurance payments increases autonomous consumption spending ("a" in the equation) by $\$ 50$ billion, then
a. Both c and d are true.
b. Both c and e are true.
c. The economy will experience a recession.
d. The economy will experience no recession provided government spending is increased by $\$ 150$ billion.
e. The economy will experience no recession provided government spending is increased by $\$ 200$ billion.
15. (Repeat your answer on Scantron line 37.) (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
a. expand
b. not change
c. may expand or contract
d. contract
16. (Repeat your answer on Scantron line 38.) (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
17. (Repeat this answer on line 39.) Considering "unemployment",
a. all of these statements are true, except e.
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. 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 statements are true.
18. (Repeat this answer on line 40.) 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.
19. (Repeat this answer on lines 41 and 42.) Your instructor probably believes the following:
1) As a general rule, the government 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. $\quad 1$ and 2 are both false
c. Only statement 1 is true.
d. Only statement 2 is true.
20. (Repeat this answer on line 43.) It is difficult to know exactly how much the cost of living has actually changed in a modern economy because
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. no other answer is correct.
e. more than one answer is correct.
21. (Repeat this answer on Scantron line 44.) 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 is likely to be very small, since the classical assumptions are probably fairly realistic.
d. interest rates will tend to decline, the supply of money will tend to rise on balance, and the resulting excess supply of money will cause inventories to drop, 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.

## Equation for the Money Supply

$$
M_{s}=\left(C_{T}+T_{f}+L_{f}\right) \frac{\left(1+\frac{1}{c_{i d}}\right)}{\left(1-\frac{x_{d}}{\left.c_{c i t}+\frac{x_{1}}{c_{c}}\right)}\right.}
$$

22. (Repeat your answer on Scantron line 45.) 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.
23. (Repeat your answer on Scantron line 46.) Choose the best answer. When the government spends more than its tax proceeds the result is a deficit, and government borrowing. Your instructor believes:
a. government borrowing is never desirable.
b. borrowing is perhaps appropriate if the government will spend the money on something yielding benefits for a long time, for example winning an important war or creating a national park.
c. government borrowing caused by tax cuts can be an important stimulus to help bring the economy out of a recession.
d. borrowing is always desirable because if the government runs a surplus it is creating a deflationary gap.
e. borrowing is desirable if the proceeds will be spent on an important annual activity, such as the annual fireworks display.
24. (Repeat your answer on Scantron line 47.) 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.
25. (Repeat your answer on Scantron lines 48 and 49.) 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. The economy is at full employment. 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) Before the experiment begins, the nominal interest rate is $6 \%$.
2) Immediately after the experiment begins, both nominal and real interest rates will rise, by the same amount.
3) As time passes, both real and nominal interest rates will decline, but real interest rates will decline by more than nominal rates.
a. All three statements are correct.
b. None of the three statements are correct.
c. Only statement 2 is correct.
d. Only statements 2 and 3 are correct.
e. Only statement 1 is correct.
26. (Repeat your answer on Scantron line 50.) 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. The economy is at full employment. 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.

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## MULTIPLE CHOICE

1. ANS: B
2. ANS: C
3. ANS: D
4. ANS: C
5. ANS: D
6. ANS: D
7. ANS: C
8. ANS: A
9. ANS: C
10. ANS: B
11. ANS: B
12. ANS: C
13. ANS: A
14. ANS: A
15. ANS: D
16. ANS: B
17. ANS: A
18. ANS: C
19. ANS: C
20. ANS: E
21. ANS: D
22. ANS: E
23. ANS: B
24. ANS: E
25. ANS: C
26. ANS: B
