Directions:

➤ Please choose the most appropriate answer for each of the multiple choice problems.

➤ Each question is worth 2 points each for a total of 150 possible points.

➤ List responses on the scantron card.

➤ Please sign below, indicating that you agree to the following responsibility:

I pledge that I will not reveal ANY information about the <u>nature or contents</u> of this exam before May 8, 2003. I understand that any violation of this agreement will immediately result in a zero on this exam and an "F" in the course.

Signature: _____

Anyone who chooses not to sign this pledge will receive a minimum 10% penalty for this exam.

Part I: Choose the most appropriate answer

Use the table to answer the following question. Figures are in billions of dollars.

Personal Consumption	4900
Personal Savings	1100
Personal Taxes	200
Indirect Business Taxes	175
Government Spending	2000
Exports	300
Imports	400
Gross Private Investment	1200
Depreciation	150

1. What is the value of GDP for this economy described above?
A. 6100
B. 8100
C. 8000
D. 6800
E. None of the above.

2. What is the value of Personal Income for this economy described above?
A. 6100
B. 8100
C. 6800
D. 6200
E. None of the above.

3. Calculate the present value (price) of a $1000 face value, zero coupon bond which matures in one year, if the nominal interest rate is currently 15%.
A. $869.56
B. $1150.00
C. $1015.00
D. $985
E. None of the above.

4. The CPI increased from 152 in 1995 to 180 in 2002. Over this same period, a worker's wage increased from $20 per hour to $23.00 per hour. What happened to the worker's real wage during this period?
A. it declined.
B. it rose.
C. it did not change

5. The CPI increased from 152 in 1995 to 180 in 2002. Over this same period, a worker's wage increased from $20 per hour to $23.00 per hour. The worker's real wage in 2002 is

A. $15.13
B. $12.77
C. $23.00
D. $20.00
E. none of the above.

6. Which of the following <u>pairs</u> of monetary policy "tools" will definitely result in an increase in the money supply?
A. a decrease in both the discount rate and the required reserve ratio.
B. an increase in the discount rate and an increase in the required reserve ratio.
C. an open market sale of government bonds and a decrease in the discount rate.
D. an open market purchase of government bonds and an decrease in the required reserve ratio.
E. both A&D.

7. In a period of full capacity, a decrease in aggregate demand due to lost consumer confidence, without further policy induced change, will cause:
A. a decrease in the price level with little or no change in unemployment.
B. a increase in the price level and a decrease in unemployment.
C. an increase in the price level and an increase in unemployment.
D. an increase in unemployment with little or no change in prices.
E. None of the above.

8. Suppose that the economy is operating on the Keynesian portion of short-run aggregate supply, and the government plans to raise taxes. This action by the government would be expected to:
A. increase prices but leave output relatively unchanged.
B. decrease prices but leave output relatively unchanged.
C. increase output but leave the price level relatively unchanged.
D. decrease output but leave the price level relatively unchanged.
E. None of the above.

When the American economy hit trouble at the beginning of 2001, the Fed went on the offensive with what its chairman, Alan Greenspan, described as an "aggressive" series of interest-rate cuts: 11 cuts in less than 12 months. The rate-cutting spree ended last December, but the Fed has consistently made it clear that if circumstances warranted another cut, one would come.

9. Referring to the previous statement, how will the Fed lower the federal funds rate?
A. They will set it directly at a lower level.
B. They will decrease the money supply slightly more than usual.
C. They will purchase more bonds than they have recently.
D. They will raise the discount rate.
E. Both A&B.

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10. What is the result on prices and GDP of a decrease in taxes coupled with non-accomodating monetary policy
A. Though the net effect is ambiguous, the two policies are offsetting.
B. Output will increase, but the effect on the price level is ambiguous.
C. Output will decrease, but the effect on the price level is ambiguous.
D. Prices will increase, but the effect on output is ambiguous.

11. With respect to the AS/AD model with the vertical LRAS , in the <u>long run</u> an increase in the money supply will:
A. have no effect on prices and output.
B. increase output only.
C. increase the price level only.
D. increase both the price level and output.

12. In the first quarter of 2003 real GDP increased by 1.6%. This means that
A. output has increased by 1.6%.
B. the price level has increased by 1.6%
C. the 1.6% increase must be split evenly between an increase in the price level and an increase in output.
D. the increase might have been caused by an increase in output, but we can't tell for sure.

13. When banks anticipate a decrease in the rate of inflation there is:
A. an increase in the nominal interest rate.
B. a decrease in the nominal interest rate.
C. an increase in the real interest rate.
D. a decrease in the real interest rate.

14. Nominal GDP in 1992 was $6.04 trillion. Nominal GDP in 1993 was $6.38 trillion. The GDP deflator was 121 in 1992 and 124 in 1993. What was the annual real rate of growth?
A. 3.2%
B. 3.1%
C. 5.63%
D. 5.33%
E. None of the above.

15. Which of the following is NOT counted as unemployed in the official unemployment rate?
A. A high school teacher who is looking for summer work.
B. A May college graduate who decides to backpack through Europe before her job starts in August.
C. A laid-off General Electric worker who is forced to retire.
D. A microchip technician who is working as a temporary office assistant until she can move to Silicon Valley where her skills are more valuable.

E. All the above.

16. If the MPC = 0.75, what are the values of the autonomous spending multiplier, the tax multiplier and the balanced-budget multiplier?
A. 4, -3, 1
B. 4, -3, 4
C. 4, 3, 1
D. 3, -4, 1
E. None of the above.

17. Suppose that Congress authorizes an increase in fiscal spending, and the U.S. Treasury finances this by selling additional government bonds. If the Fed wants to prevent short-run changes in nominal interest rates, then it is likely to:
A. pursue an accommodating monetary policy.
B. pursue a non-accommodating monetary policy.
C. sell government bonds on the open market.
D. lower the discount rate.
E. None of the above.

18. Suppose that Congress enacts an autonomous tax cut. If the Fed wants to prevent short-run changes in the price level and the quantity of output, then it is likely to:
A. buy government bonds to keep prices and output from rising.
B. sell government bonds to keep prices and output from falling.
C. buy government bonds to keep prices from rising and output from falling.
D. sell government bonds to keep prices and output from rising.
E. None of the above.

19. Economists believe that inflation is ultimately a "monetary phenomenon" because:
A. as AD increases, income and money demand increase, driving down the interest rate.
B. as expansionary fiscal policy continues, eventually the demand for bonds is exhausted and the Fed is forced to finance the debt itself by purchasing bonds directly from the Treasury.
C. as expansionary fiscal policy continues, eventually the supply of bonds is exhausted and the Fed is forced to sell bonds to the Treasury.
D. in most cases monetary accommodates fiscal policy.
E. None of the above.

20. As a monetary policy tool of the Fed, adjustments in the discount rate have the potential to:
A. affect the money supply primarily through changes in the money multiplier.
B. affect the money supply primarily through changes in loans to Fed Banks.
C. affect the money supply primarily through shifts in the money demand schedule.

D. affect money supply primarily through changes in open market operations by the Fed.

E. None of the above.

21. If the required reserve ratio is .10, and the Fed sells $1 M in U.S. government securities via open market operations (OMO), the maximum amount by which the money supply will change is

A. +$1 M.

B. + $10 M.

C. -$10 M

D. -$1 M

E. None of the above.

22. If the Fed desires to expand the money supply, it can

A. buy government bonds   B. lower the discount rate

C. lower the required reserve ratio   D. all of the above

E. None of the above.

23. Suppose that the money market is initially in equilibrium and then the Fed increases the required reserve ratio. What is the result of the Fed's policy change?

A. there will be an excess demand for money thus causing the interest rate to fall to the new equilibrium.

B. there will be an excess supply of money thus causing the interest rate to rise to the new equilibrium.

C. there will be an excess demand for money thus causing the interest rate to rise to the new equilibrium.

D. there will be an excess supply of money thus causing the interest rate to fall to the new equilibrium.

E. None of the above.

24. Aggregate Supply shifts left when

A. income taxes fall.

B. firms' costs rise.

C. consumption rises.

D. productivity rises.

E. money supply falls.

Table I: *Assume an economy produces the following three items. Use this information for the next 4 problems.*

1995 Goods & Services	2002 Goods & Services	1995 Prices	2002 Prices

Pencils	100	300	$1	$2
Pens	200	300	$2	$3
Paper	300	300	$3	$4

25. Assuming Table I represents the total output of final goods and services of a small economy,
use 1995 as the base year to calculate the CPI for 2002 if one assumes the 1995 Goods and Services column is a representative consumer bundle.
A. 1.30   B. 0.70   C. 1.50   D. 1.43

26. Use the CPI to calculate the inflation rate between 1995 and 2002.
A. 43%   B. 30%   C. 50%   D. 7%

27. Assuming Table I represents the total output of final goods and services of a small economy,
use 1995 as the base year to calculate the GDP deflator for 2002.
A. 1.30   B. 0.70   C. 1.50   D. 1.43

28. Use the deflator to calculate the inflation rate between 1995 and 2002.
A. 43%   B. 30%   C. 50%   D. 7%

29. Initially, the war with Iraq caused oil prices to _____, causing a(n) _____ in_____ and _____.
A. increase, increase, aggregate demand, rising prices (CPI)
B. increase, decrease, aggregate supply, falling prices (CPI)
C. increase, decrease, aggregate supply, rising prices (CPI)
D. decrease, decrease, aggregate demand, falling prices (CPI)
E. None of the above.

30. According to economists, the efficient amount is provided if:
A. marginal private benefits and marginal private costs are equal.
B. marginal social benefits and marginal social costs are equal.
C. marginal private benefits exceed marginal private costs.
D. marginal social benefits exceed marginal social costs.

31. At the current level of consumption, the marginal social benefit of health care is $300 while the marginal social cost is $450. Based on this information:
A. the quantity of health care should remain unchanged.
B. the quantity of health care should be increased.
C. the quantity of health care should be decreased.
D. the quantity of health care is currently at the efficient level.

32. Which of the following is characteristic of a public good?
A. A public good is produced by the government sector.
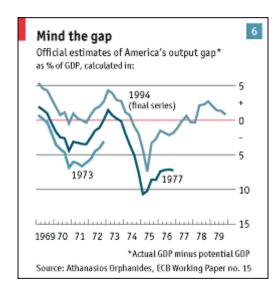B. Nonpaying individuals can be excluded from consuming a public good.

C. Consumption of a public good by one individual does not decrease the quantity of the good available for other individuals to consume.

D. A public good is excludable.

33. The free rider problem refers to:

A. a situation in which individuals who benefit from a good or service do not pay for it.

B. a situation in which individuals attempt to persuade government to provide goods and services to them at no cost or at a reduced price.

C. a situation in which legislators enact inefficient programs in order to receive the political support of lobbyists.

D. a situation in which some individuals provide basic necessities for other individuals who are financially unable to provide the necessities for themselves.

34. Assume that, $C = 1000 + .9Y_{dis}$ billion \$, $G = 150$ billion \$, $T = 100$ billion \$ and $I = 250$ billion \$ (EX=IM=0) at the North Pole. Equilibrium Income (GDP) is:

A. 14,000.   B. 13,100.   C. 9,100.   D. 10,000.

35. Assume that, $C = 1000 + .9Y_{dis}$ billion \$, $G = 150$ billion \$, $T = 100$ billion \$ and $I = 250$ billion \$ (EX=IM=0) at the North Pole. Equilibrium Savings is:

A. 400.   B. 310.   C. 250.   D. 300.

Part II: An Economic Odyssey

Directions: The following is a portion of an article from a leading business magazine. The article addresses whether fiscal and monetary policy can have a stabilizing effect on the economy. As you read the article you will be asked to answer questions linking the current debate concerning recent economic history to the concepts and methodology we discussed during the semester.

Can monetary and fiscal policy eliminate the business cycle?
THE ability of macroeconomic policy to erase the business cycle has in turn been greatly over- and underestimated over the decades. The broad consensus now is that monetary and fiscal policy can moderate the ups and downs, but they will never abolish the cycle altogether.

36. The Business Cycle is:
A. The usual rise and fall in the inflation rate over time.
B. The usual rise and fall of exchange rates over time.
C. The usual ebb and flow of business activity over time.
D. All the above.
E, None of the above.

37. A high inflation rate or an extreme business cycle
A. stimulates consumption and investment.
B. reduces consumption and investment.
C. reflects instability in the economy.
D. Both B&C.
E. None of the above.

38. A recessionary gap requires

A. employment beyond the full employment level.B.   employment   below   the   full employment level.

C. disequilibrium.   D. Both B&C.

E. None of the above.

In the 1950s and 1960s policymakers believed that by increasing government spending, trimming taxes or cutting interest rates they could avert recessions and control unemployment.

39. A decline in firms' confidence in the economy causes

A. an increase in aggregate supply.

B. a decrease in aggregate demand.

C. a decrease in aggregate supply.

D. no change in aggregate demand.

E. an increase in aggregate demand.

40. A decline in consumers' confidence in the economy causes

A. an increase in aggregate supply.

B. a decrease in aggregate demand.

C. a decrease in aggregate supply.

D. no change in aggregate demand.

E. an increase in aggregate demand.

41. Suppose that taxes are autonomous and that the economy is now operating at the full-employment-non-inflationary GDP and the MPC is .6. Due to a war in the Middle East, the federal government now finds that it must increase spending on military goods by $100 billion. In order to sustain full-employment-non-inflationary GDP a Keynesian would:

A. reduce taxes by $100 billion   B. increase taxes by $100 billion

C. increase taxes by $166.67 billion   D.   reduce transfer payments by $30 billion

E. None of the above.

42.   Suppose that government spending, taxing, and investment do not depend on the level of income.   Given that the MPC is 0.8 and that the current GDP recessionary gap is $650 million, what change in government tax revenues would a Keynesian say is necessary to eliminate this gap?

A. Taxes would have to increase by $130 million.   B. Taxes would have to decrease by $130 million.

C. Taxes would have to increase by $162.5 million.   D. Taxes would have to decrease by $162.5 million.

43. In the Keynesian model, an increase in government expenditures will have a stronger impact on aggregate expenditures than a tax cut of equal dollar value because:

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A. income resulting from the tax cut does not have multiplier effects, but the increase in spending does.
B. the spending increase is likely to have a stronger effect on the money supply than the tax cut would.
C. some of the extra disposable income resulting from a tax cut is saved and not spent; therefore, it does not add to aggregate expenditures.
D. none of the above.

44. Expansionary Fiscal policy refers to:
A. Decisions by Congress to raise government spending or the money supply.
B. Decisions by the Fed to raise government spending or taxes.
C. Decisions by Congress to raise government spending or lower taxes.
D. Decisions by Congress to lower government spending or taxes.
E. Decisions by the Fed to raise the money supply.

45. In the short-run, expansionary Fiscal policy causes:
A. an increase in aggregate supply.
B. a decrease in aggregate demand.
C. a decrease in aggregate supply.
D. no change in aggregate demand.
E. an increase in aggregate demand.

But as inflation took off in the 1970s and public debt exploded, Keynesian fine-tuning went out of fashion. Policy in the 1980s and 1990s was aimed largely at reducing inflation, not stabilizing output. Governments rejected active monetary and fiscal policies in favor of adherence to rules. Central banks were made independent, and many were given explicit inflation targets. Meanwhile, governments laced themselves into fiscal straitjackets. America set balanced-budget targets in the 1990s and the euro area adopted a fiscal stability pact with strict limits on government borrowing. The notable exception was Japan, which embarked on a decade of fiscal expansion.

46. Suppose that the equilibrium level of income is $50 Billion (B) below the full employment level and that the marginal propensity to consume is 0.8. Which of the following would a Keynesian says will allow the economy to reach full employment while maintaining a balanced budget?
A. increase G and T by $200 B each
B. increase G and T by $50 B each
C. decrease G and T by $50 B each
D. increase G and T by $250 B each
E. None of the above.

47. The Federal Funds rate (FFR).
A. is the same as the discount rate.
B. is determined by a market

C. is set directly by the Fed.

D. is controlled by changes in the money supply.

E. both B&D.

48. The Federal Funds rate will _____ whenever the Fed decides to sell bonds in the Federal Funds market.

A. increase   B. decrease   C. not change

49. The Federal Funds rate will _____ whenever the Fed decides to lower the required reserve ratio (RRR).

A. increase   B. decrease   C. not change

50. In the Federal Funds market:

A. Banks borrow to cover reserve deficiencies.

B. Firms borrow to cover debt deficiencies.

C. Banks borrow to cover investment losses.

D. All the above.

51. In our general version of the money market, money demand is motivated by a

A. transactions motive.

B. speculative motive.

C. precautionary motive.

D. All the above.

52. Fiscal Policy in Japan has not corrected their recessionary gap because:

A. The current recessionary gap is too large to be corrected by short-run policies.

B. Consumers and Entrepreneurs have lost a great deal of confidence in the economy.

C. Banking reform has proceeded much too slowly since 1998.

D. All the above.

In the past year, interest in fiscal policy has revived. The American government administered its biggest budget stimulus for two decades. In the euro area, too, there has been a vigorous debate about whether governments should stick to their medium-term fiscal targets or allow budget deficits to widen as their economies weaken. So why did governments abandon fiscal policy in the first place?

The first reason was that public debts were on an unsustainable path. But after a decade of fiscal rectitude, by 2000 budgets in most rich countries had moved close to balance, if not surplus. That allows governments to have a more flexible fiscal policy. A second reason for disenchantment with fiscal measures was a widespread conviction that they did not work. Extra government borrowing, the argument went, would push up long-term interest rates and crowd out private investment. In addition, as public debts mount up, households expect taxes to rise in future so they may save more, offsetting the stimulus—the so-called "Ricardian equivalence"

effect. *In practice, most studies have found that an increase in government borrowing does indeed boost (net aggregate) demand. However, recent research suggests that fiscal policy may pack a smaller punch than it used to.*

53. The Fiscal stimulus proposed by the Bush Administration and passed by Congress in 2001-02 (though Congress recently cut it in half) was principally a(n)
A. tax cut.   B. increase in government expenditures.
C. increase in the money supply.   D. All the above.

54. Despite the fact that the economy is at full-employment, elected officials want to really impress the electorate with a tax cut. This initiates a(n) _____ in _____. This move is an example of _____ fiscal policy. Thus, a short run effect is
A. increase, aggregate demand, expansionary, a decrease in output.
B. decrease, aggregate supply, expansionary, an increase in price.
C. increase, aggregate supply, contractionary, a decrease in price.
D. increase, aggregate demand, expansionary, an increase in output.
E. increase, aggregate demand, contractionary, an increase in price.

55. Despite the fact that the economy is at full-employment, elected officials want to really impress the electorate with a tax cut. The long run effect is
A. a decrease in output and an increase in price.
B. only an increase in price.
C. only an increase in output.
D. an increase in output and a decrease in price.
E. an increase in output and an increase in price.

56. As the government deficits increase
A. interest rates rise.
B. interest rates fall.
C. interest rates do not change.

57. "Crowding out" refers to
A. the indirect decrease in investment when an increase in government spending leads to an increase in the demand for loanable funds.
B. the indirect increase in investment when an increase in government spending leads to an increase in the demand for loanable funds.
C. the indirect decrease in investment when an increase in government spending leads to an increase in the supply of loanable funds.
D. the indirect decrease in investment when an increase in government spending leads to a decrease in the supply of loanable funds.

58. Although the evidence is sketchy, some have stated the fiscal policy has not worked as well in _____ because of "Ricardian Equivalence."
A. the U.S.   B. China   C. Japan   D. Argentina

59. Crowding out could potentially eliminate any boost from expansionary fiscal policy if
A. the reduction in private investment more than offsets the fiscal stimulus.
B. the reduction in private investment is less than the fiscal stimulus.
C. the reduction in private investment more than offsets the monetary stimulus.
D. None of the above.

Roberto Perotti, an economist at the European University Institute in Florence, examined fiscal policy in five countries (America, Britain, Canada, Germany and Australia) and estimated the impact on GDP of discretionary fiscal-policy changes after stripping out the automatic movements in taxes and spending over the cycle. He found that the effects of fiscal policy on GDP have become much weaker in the past 20 years compared with the previous 20. Also, increases in public spending have less effect on demand in smaller economies than they do in America. Identifying the size and impact of discretionary fiscal policy is a tricky business, so it would be unwise to place too much weight on the exact size of the fiscal impact estimated by Mr Perotti. But the evidence that fiscal policy is becoming less effective is worth bearing in mind. This does not seem to be due to a change in monetary policy. Mr Perotti finds that real interest rates increased by less in response to bigger budget deficits in the later two decades than in the first. Nor can it be explained by households saving more for fear that unsustainable public debts will force governments to raise future taxes: personal saving rates have fallen over the past two decades in most economies. Even where fiscal policy still works, getting the timing right is tricky. In some countries, notably the United States, it can take months to get political approval. By the time a stimulus is administered, the economy may have already recovered. In contrast, interest rates can be cut without delay, and swiftly reversed if the economic outlook suddenly improves.

60. According to the article, there is _____evidence supporting "Ricardian Equivalence."
A. little.   B. much.   C. conflicting

Given the difficulty of timing a fiscal stimulus correctly, most economists agree that monetary policy is a better tool for stabilizing growth. Yet how does this fit with the widely held view that central banks' prime goal should be price stability? According to Ernst Welteke, the president of the German Bundesbank, "The European Central Bank doesn't have the job of steering the economy. The best contribution monetary policy can make to growth and employment is to keep prices stable."

61. According to Ernst Welteke, the president of the German Bundesbank
A. Central banks should not try to manipulate GDP.
B. Central banks should try to manipulate GDP to help the economy.

C. If such a policy is desired, it is the job of Congress to try to manipulate GDP.
D. Both A&C.
E. All the above.

Inflation isn't everything

In practice, however, central bankers do not concentrate on inflation to the exclusion of everything else. Benjamin Friedman, an economist at Harvard University, argues that although central bankers strenuously deny having any policy objective other than price stability, in practice they all take growth into account. For example, if inflation rises above target, a central bank will generally aim to reduce it gradually rather than suddenly, to avoid inflicting too much damage on growth. Besides, by aiming to keep inflation stable a central bank will, in effect, also stabilize output. When the economy is producing below potential, inflation will fall and the central bank will cut interest rates, helping to boost growth. When output is above potential, inflation will rise and the central bank will increase interest rates, thereby dampening down growth. The popular perception is that America's Fed takes more account of growth than the ECB. Whereas the Fed often explains its interest-rate cuts in terms of propping up demand, the ECB always puts inflation first. In recent years Americans have placed excessive faith in the ability of the Fed, and particularly of Alan Greenspan, to tame the economic cycle. But monetary policy cannot be used with surgical precision. Not only are there long and variable lags before changes in interest rates affect output, but there is also much uncertainty about the potential growth rate and the size of the output gap.

62. A decrease in the money supply causes
A. interest rates to rise.
B. investment to fall.
C. aggregate demand to fall.
D. GDP to fall in the short run.
E. All the above.

63. If the Fed buys bonds from the New York Federal Reserve Bank
A. interest rates will fall.
B. investment will rise.
C. aggregate demand will rise.
D. GDP will rise in the short run.
E. All the above.

64. According to the article,
A. Policy makers can easily implement the correct changes in government spending, taxes or the money supply that will stabilize the economy.
B. Policy makers cannot easily implement the correct changes in government spending, taxes or the money supply that will stabilize the economy.
C. Policy makers are foolish for attempting to make changes in government spending, taxes or the money supply that will stabilize the economy.

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D. None of the above.

Many people believe that the sharp increase in inflation in the 1970s could have been avoided if only the Fed had been using today's monetary-policy framework...
Official estimates of potential output at the time failed to spot the slowdown in productivity growth in the late 1960s and early 1970s. Partly as a result, monetary policy tried to stabilize output at too high a level, causing inflation to rise.
In 1973 the output gap was estimated at minus 3%, implying considerable economic slack. With the benefit of hindsight, it is now put at plus 4% for that period, implying massive upward pressure on inflation. With such measurement errors, a monetary policy that tries too hard to smooth the cycle could easily increase output (and price) volatility.

65. An increase energy costs initiates a(n) _____ in _____. In an effort to offset the resulting decline in output, the government assumes an expansionary monetary policy which causes the _____ curve to shift to the right, thus beginning the phenomenon called _____.
A. decrease, aggregate supply, aggregate demand, demand-pull inflation.
B. increase, aggregate demand, aggregate supply, demand-pull inflation.
C. decrease, aggregate supply, aggregate demand, cost-push inflation.
D. decrease, aggregate demand, aggregate supply, cost-push inflation.

66. If both expansionary fiscal and monetary policy occur, what will happen to prices (P), interest rates (r)
and real output (Y_E) as a result?

A. P, r, and Y will rise.

B. P, and r will rise, and Y_E will rise, fall or stay the same.

C. P, and r will fall and Y_E will rise.

D. P, and Y_E will rise and r will rise, fall or stay the same.

Too low for comfort
Nevertheless, compared with the double-digit inflation rates in the 1970s, low and less volatile inflation has helped to deliver greater economic stability. In many economies inflation is at its lowest for 40 years. Might it now be too low? Once inflation is around 3%, squeezing it even lower will do little to improve an economy's growth performance. Indeed, as inflation approaches zero, the risks of greater economic volatility start to rise. One reason is that interest rates cannot be negative, so if inflation is close to zero there is no way to achieve the negative real interest rates that may be needed to stimulate an economy. This is the so-called "liquidity trap" into which Japan has fallen. If real interest rates are too high, the risk of deflation increases. Deflation is much more damaging to economic stability than inflation. It deepens recessions because it increases the real burden of debt and encourages consumers to delay purchases in the hope of even lower prices later.

That fate may yet befall the United States. Its inflation rate, measured by the GDP deflator, is currently running at only 1%. If America's recession were to resume, the Fed's ability to act would be limited.
The bank seems to be well aware of this risk. In a recent Fed study of Japanese deflation, it argues that monetary policy in Japan in the early 1990s was not too tight, given the forecasts of growth and inflation at the time, and fiscal policy was generally expansionary. However, growth and inflation forecasts consistently proved too high. At the time, nobody in Japan or abroad was predicting deflation. The Bank of Japan's big mistake was to fail to take out the necessary insurance against downside risks when its bubble had burst.

67. In theory, in order to maintain perfect price stability any central bank such as the Fed would have to

A. allow the money supply to grow at faster rate than GDP.
B. have no changes in the money supply
C. allow the money supply to grow at exactly the same rate as GDP.
D. allow the money supply to grow at slightly slower rate than GDP.
E. none of the above.

68. When the money supply grows too slowly
A. GDP growth can decline.
B. prices may rise.
C. prices may fall.
D. both A&C.

69. Why is deflation more difficult for policy makers to combat if interest rates are already so close to zero?
A. Because lowering interest rates will likely raise GDP and lower prices quite a bit.
B. Because lowering interest rates will likely raise GDP and prices quite a bit.
C. Because lowering interest rates will likely lower GDP and prices.
D. Because lowering interest rates will likely have little impact on GDP and prices.
E. None of the above.

70. Why do policy makers like some inflation?
A. Because it keeps the real rate of interest positive.
B. Because it keeps the nominal rate of interest positive.
C. Because it keeps the money supply growth rate negative.
D. Because it keeps the real rate of interest negative.
E. None of the above.

The Fed concludes that as interest rates and inflation move closer to zero and the risk of deflation rises, central banks need to cut interest rates by more than would normally be justified by prevailing economic conditions. Once deflation emerges, monetary policy can do little to pull the economy out of a slump. If, on the other hand, a central bank injects too much stimulus, it can correct this later.
Keynes argued that even when deflation has taken hold and monetary policy is "pushing on a string", fiscal policy can still stimulate demand. Japan has tried this, running a huge budget deficit over the past decade, yet its economy remains sick and prices continue to fall. Why?

71. Long run growth can occur when
A. the LRAS curve shifts right.
B. there is a permanent decrease in firms' costs.
C. there is a permanent increase in productivity.
D. there is a permanent improvement in human capital.

72. Generally, tax cuts can have a long term impact on the economy
A. if entrepreneurs and firms use the extra cash to generate new ideas and technology that improve efficiency.
B. if they are permanent.
C. even if they are temporary.
D. both A&B.
E. all the above.

73. Generally, spending on the military or social programs can have a long term impact on the economy
A. if individuals, agencies and firms use the extra cash to educate individuals.
B. if they are permanent.
C. if they help develop the country's infrastructure (roads, bridges, infrastructure).
D. both A&B.
E. all the above.

74.   Suppose that Congress increases spending on highways in order to stimulate the economy. If the Fed wants to prevent short-run changes in the price level and the quantity of output, then it is likely to:
A. buy government bonds to keep prices and output from rising.
B. sell government bonds to keep prices and output from falling.

C. buy government bonds to keep prices from rising and output from falling.

D. sell government bonds to keep prices and output from rising.

75. Assume that the country of Fifedom suddenly experiences a sharp decline in the prices of industrial equipment as well as an increase in the money supply. What will the result be?

A. Output will increase, but the effect on the price level is ambiguous.

B. Output will decrease, but the effect on the price level is ambiguous.

C. Prices will increase, but the effect on output is ambiguous.

D. Prices will decrease, but the effect on output is ambiguous.