Name:
Section No.:
SSN:
GSI:

Economics 102
Introduction to Macroeconomics
Prof. Alan Deardorff

Midterm Exam 2

Form 1

March 23, 1998

Instructions

1. Please do not open the exam book until you are told to do so.

2. Place your name, student id, section number and form number on the exam **AND** on the scantron sheet. *This is worth 2 points on the exam.*

3. This exam has 100 points and is 50 minutes long, although you will have 75-80 minutes to complete it. Multiple choice questions are 3 points each. Choose the best answer from those given. There is no penalty for guessing. The point values of all other questions are shown in parentheses.

4. Answers to the multiple choice questions in Part I should be marked on the scantron sheet. Answers to Part II should be written on this exam book.

5. Good luck!

GSI	Sections	
Axel	#209 - Thu 1-2:30	
Chul	#208 - Thu 1-2:30	#212 - Thu 2:30-4
Kishen	#206 - Thu 10-11:30	#210 - Thu 8:30-10
Lucie	#202 - Thu 10-11:30	#203 - Thu 11:30-1
Reuel	#204 - Thu 1-2:30	#211 - Thu 2:30-4
Ufuk	#205 - Thu 2:30-4	#207 - Thu 11:30-1

Name, Student Id, Section Number, Form Number on BOTH scantron and exam book (2 pts)

Part 1: Multiple Choice (60 points, 3 each)

Select the **best** answer of those given.

1. If the rate of unemployment falls, which of the following ***must*** be true?

   a. The labor force goes up

   b. The number of employed goes up

   c. The number of discouraged workers falls

   d. The number of unemployed workers falls

   e. None of the above

2. The rate of unemployment tends to be

   a. about the same across all sectors of the population.

   b. similar between white females (ages 16 and over) and black females (ages 16 and over).

   c. lower among teenagers (ages 16-19) because they enter and leave the labor force so often.

   d. substantially higher for white females (ages 16 and over) than for black males (ages 16 and over).

   e. similar between white males (ages 16 and over)and white females (ages 16 and over).

3. According to Mankiw's theories of the natural rate of unemployment, which of the following is ***true***?

   a. The natural rate of unemployment is a constant, since changes in such things as minimum wage laws or the extent of unionization in an economy only have temporary effects on employment.

   b. The natural rate of unemployment fluctuates year-to-year due to the short run fluctuations in output.

   c. The introduction and consequent widespread use of efficiency wages both increased worker effort and reduced the natural rate of unemployment.

   d. Government policies that help reduce the time it takes to match workers with firms will reduce the natural rate of unemployment

   e. Unemployment insurance lowers the natural rate by allowing unemployed workers more time to find a new job.

4. Assume the required reserve ratio is 20% while banks do not hold excess reserves and households do not hold cash. Suppose that the Fed now reduces this required ratio to 10% but banks now hold 10% in excess reserves. What is true of the money multiplier?

   a. It is unchanged at 5

   b. It is unchanged at 20

   c. It has risen from 5 to 10

   d. All of the above

   e. None of the above

5. To be useful as a money, a commodity should

   a. Be widely wanted

   b. Be durable

   c. Have a high ratio of value to weight

   d. All of the above

   e. None of the above

6. All of the following are costs of high ***expected*** inflation ***except***:

   a. shoeleather costs
   b. redistribution of wealth between creditors and lenders
   c. increased variability of relative prices
   d. distortions in the tax system
   e. menu costs

7. When the Fed buys bonds through open market operations, the money supply will _____ and the price level will _____ in the long run.

   a. increase; rise
   b. increase; fall
   c. decrease; rise
   d. decrease; fall
   e. none of the above

8. Suppose that there is an increase in real incomes in the US. If the Fed takes no action (that is, it makes ***no*** use of its tools of monetary control), then in the long run there will be a(n) _____ in the price level and _____ in the nominal money supply.

   a. increase: an increase
   b. increase: a decrease
   c. increase; no change
   d. decrease; decrease
   e. decrease; no change

9. According to the Fisher Effect

   a. If a country's rate of inflation is higher than inflation in the rest of the world, its currency will depreciate.

   b. The nominal interest rate increases one-for-one with increases in the rate of inflation.

   c. Growth in the physical capital stock, holding the labor force constant, yields diminishing returns in terms of extra output.

   d. Net exports must equal net foreign investment.

   e. An increase in the money supply has no effect on real variables in the long run.

10. Consider two countries, Japan and the US. Assume that the inflation rates year after year are: –1% in Japan and +1% in the US. According to the Purchasing Power Parity Theory, one would expect the bilateral nominal US exchange rate (Yen per US$) to:

    a. Appreciate

    b. Depreciate

    c. Appreciate initially then depreciate

    d. Depreciate initially then appreciate

    e. None of the above

11. In 1997, Americans bought a total of $100b worth of foreign goods and services, and acquired $30b of foreign assets. Foreigners acquired $45b worth of American assets. How much were total US exports?

    a. $115b

    b. $85b

    c. $70b

    d. $15b

    e. cannot be determined from the given information.

12. Suppose the US dollar appreciates relative to the Japanese yen and depreciates relative to the German mark. Suppose also that price levels stay the same in all three countries. Which of the following is ***correct***?

    a. The yen appreciated with respect to the mark.

    b. American goods became more expensive relative to German goods.

    c. The German mark became cheaper for US citizens.

    d. These changes are favorable for Japanese exporters.

    e. None of the above.

13. If other things do not change, then Net Foreign Investment will rise if

    a. The foreign interest rate falls

    b. The domestic interest rate rises

    c. Foreign assets become more risky

    d. Domestic assets become more attractive

    e. The domestic government restricts foreign holders of domestic assets

14. If the government imposes a tariff on imports then (ignoring the effects of the tariff on the government's revenue) in the long run NX ____, NFI ____, the real exchange rate _____, while the real interest rate ____.

    a. rise; falls; depreciates; rises

    b. rise; rises; depreciates; falls

    c. do not change; does not change; appreciates; rises

    d. do not change; does not change; appreciates; remains the same

    e. do not change; does not change; depreciates; remains the same

15. In the 1980s during the Ronald Reagan era, loose fiscal policy was pursued (i.e. large government deficits). The most probable long run outcome of this policy was

    a. Exchange rate appreciation and rise in trade deficit.
    b. Exchange rate depreciation and rise in net foreign investment into the US.
    c. Exchange rate appreciation and fall in trade deficit.
    d. Exchange rate depreciation and fall in trade deficit.
    e. None of the above.

16. Which of the following is ***not*** a consequence of a decline in the European desire to hold US bonds at any real interest rate?

    a. US dollar depreciates
    b. US net foreign investment increases
    c. US national saving goes up
    d. US domestic investment increases
    e. US real interest rate rises

17. In the long run an import quota that restricts imports to a lower quantity than before

    a. decreases the trade deficit
    b. reduces the interest rate
    c. decreases exports
    d. increases net foreign investment
    e. stimulates the economy

18. Which of the following is ***true***?

    a. Net foreign investment always equals net exports plus net foreign portfolio investment in an economy.

    b. In an open economy, national saving must equal domestic investment plus net exports.

    c. The theory of purchasing-power parity implies that the nominal exchange rate must be one.

    d. According to the quantity theory of money, an increase in the money supply always leads to a decrease in the velocity of money by the same rate.

    e. The classical dichotomy separates the market for loanable funds from the market for foreign-currency exchange .

19. At the meeting of the Fed's open market committee on February 4 (the only meeting they've had so far this year), the committee

    a. Raised the discount rate.

    b. Lowered the discount rate.

    c. Lowered the reserve requirement for commercial banks.

    d. Indicated that they are now about as likely to lower interest rates as to raise them the next time they meet.

    e. Announced that they would hold the nominal money supply fixed until their next meeting.

20. Which of the following has recently (in the last three months) gone ***down***, according to reports in the Wall Street Journal?

    a. The government budget deficit.

    b. The trade deficit.

    c. Consumer confidence.

    d. Productivity.

    e. The interest rate charged to banks by the Fed.

Part II: Short Answer (38 points)

1. (16 points) Consider an economy in which no one holds cash and banks lend to their limits. Currently in this economy there are $1,000 in reserves in the banking system, the required reserve ratio is 10%, the price level is $5 a unit, and real output is 5,000 units per year.

   a. (2 points) The money supply is __________ dollars in this economy.

   b. (2 points) According to the quantity theory of money, the velocity of money is _________ times per year in this economy.

   c. (5 points) In the space below draw the long run MS/MD diagram for this economy, clearly labeling all curves and axes. Also, label the equilibrium value of money and give the actual value (the numerical value).

   d. (7 points) The monetary authority in this economy now decides to raise the discount rate, which prompts banks to hold an extra 10% in reserves against all deposits. In the space provided below redraw the long run MS/MD diagram given the change in the discount rate. Clearly label the new equilibrium value of money and money supply, and provide the new numerical value for each.

2. (9 points) For each of the following transactions indicate its effect or effects on (US) net exports (NX) and/or net foreign investment (NFI). For changes in NFI, indicate whether they involve foreign direct investment (FDI) or foreign portfolio investment (FPI). Briefly explain why you categorized each transaction as you did.

   a. (3 points) The Russian government sells stock in a state owned enterprise, a small portion of this stock is purchased by a US investor using dollars. The Russian government holds the dollars in its bank vaults.

   b. (3 points) A Canadian citizen buys a parcel of land in the US from a US farmer to develop as a strip mall using Canadian dollars. The Farmer keeps the Canadian dollars.

   c. (3 points) A US citizen exchanges dollars for Yen with a Japanese bank on the exchange market. The US citizen buys a camera produced in Japan using these Yen, while the Japanese bank keeps the dollars in its vault.

3. (13 points) This year US tax payers were given the option to invest money in a new tax-deferred savings vehicle called a Roth IRA. Specifically, the interest earned on any savings in a Roth IRA is not subject to tax. In this question you will analyze the long run effects of such a policy ignoring the implications of such a policy for the government budget (i.e. assume that there is no change in government spending or taxes collected). Also, assume that there is no net effect on real output.

   a. (5 points) In the space provided below illustrate the effects of this policy using Mankiw's real interest rate / real exchange rate diagrams. Make sure that you clearly label all axes, all curves, and the direction of change for all variables that are determined by the model. Briefly explain.

   b. (8 points) Give the direction of change for each of the following variables:

      i. real interest rate _____
      ii. real exchange rate _____
      iii. national savings _____
      iv. private savings _____
      v. domestic investment _____
      vi. net foreign investment _____
      vii. net exports _____
      viii. consumption _____