

Name:
Section No.:
SSN:
GSI:

Economics 102
Introduction to Macroeconomics
Prof. Alan Deardorff

Midterm Exam 1

Form 1

February 9, 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. Multiple choice questions are 4 points each. Choose the best answer from those given. The point values of all other questions are shown in parentheses. There is no penalty for guessing.
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

Axel
Chul
Kishen
Lucie
Reuel
Ufuk

Sections

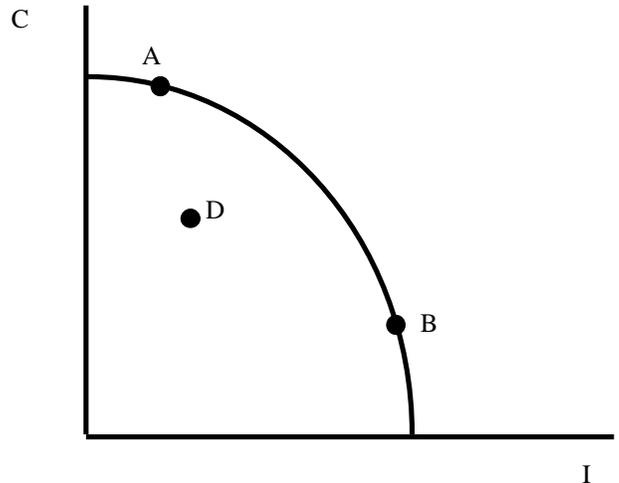
#209 - Thu 1-2:30	
#208 - Thu 1-2:30	#212 - Thu 2:30-4
#206 - Thu 10-11:30	#210 - Thu 8:30-10
#202 - Thu 10-11:30	#203 - Thu 11:30-1
#204 - Thu 1-2:30	#211 - Thu 2:30-4
#205 - Thu 2:30-4	#207 - Thu 11:30-1

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

Part 1: Multiple Choice (60 points, 4 each)

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

1. An economy can produce either consumption or investment goods. The diagram at the right shows the current production possibilities of this country.



In this diagram year-to-year growth would be shown by:

- a. A movement from point A to point B
 - b. A movement from point B to point A
 - c. A movement from point D to point A
 - d. A movement from point D to point B
 - e. The entire curve (PPF) shifting up and to the right.
2. Which of the following economies is *not* one of the five with the highest real per capita GDP in the world?
- a. United States
 - b. Canada
 - c. China
 - d. Switzerland
 - e. Hong Kong
3. In a closed economy, national savings is equal to:
- a. $Y - C - G$
 - b. Private Savings + Public Savings
 - c. Investment
 - d. all of the above
 - e. none of the above

4. The Gross Domestic Product for 1995 does *not* include
- the value of an intermediate good that was produced in 1995 and not yet sold
 - the services of a maid who is hired to clean a home
 - lawyers' fees
 - sale of a used car by a consumer
 - goods that will not be used until after 1995
5. Which of the following is a valid example of one of Mankiw's Ten Principles of Economics?
- The cost of attending college includes the wages that the student could have earned but didn't.
 - A country faces a tradeoff between imports and income for its citizens.
 - Governments are better than markets for organizing economic activity because they are not motivated by profit.
 - If people only consider small changes in what they do, they will never change anything.
 - Inflation is caused when banks fail and the amount of money in the economy decreases.
6. The law of diminishing returns implies all of the following *except*:
- A catch-up effect exists.
 - The higher the level of the capital stock, the lower the benefit from each additional unit of capital supplied.
 - A doubling of all inputs leads to a doubling of output.
 - Countries that start off poorer tend to grow more rapidly.
 - A higher savings rate causes productivity growth to be higher temporarily.
7. A change in the tax laws that encouraged greater private savings (at any interest rate) would cause a(n) _____ in real interest rates and a(n) _____ in investment:
- increase; increase
 - increase; decrease
 - decrease; increase
 - decrease; decrease
 - no change; no change

Answer questions 8 and 9 based on the following information:

The data on the GDP deflator and real GDP of Econland, a country, are given as follows. The base year for the GDP deflator is 1992. Real GDP is measured in billions of dollars. Assume that there is no population growth from 1992 to 1997.

Year:	1993	1994	1995	1996	1997
GDP Deflator	97	97	102	100	105
real GDP	1900	2000	2200	1800	2000

8. In which year(s), did Econland experience the highest percentage rate of inflation and the highest percentage rate of economic growth?
- 1997; 1994
 - 1997; 1997
 - 1997; 1995
 - 1995; 1997
 - 1995; 1995
9. Which of the following statements is *true*?
- Econland experienced deflation in 1993 and 1996.
 - The data show economic recessions in 1996 and 1997.
 - Nominal GDP in 1997 is larger than nominal GDP in 1994.
 - The price of every good and service must be the same in 1993 and 1994.
- I and II
 - III and IV
 - II, III and IV
 - III only
 - I and III
10. The government of Econland, a closed economy, decided to give a tax reduction to any firm building a new plant. Which of the following is *not true*? (Assume there is no change in the government budget.)
- This policy will raise the interest rate in the loanable funds market by increasing demand for loanable funds.
 - This will raise the equilibrium quantity of loanable funds.
 - This will stimulate investment by lowering the real interest rate.
 - This policy will increase the productivity of Econland in the future.
 - As investment rises, national saving must also increase.

11. Approximately what will be the price today of a bond that promises to pay the holder \$2200 two years from today (and no other payments)? The real interest rate is 8%, while the rate of inflation is 2% (Assume that these rates will continue to prevail throughout the next two years).
- 1760
 - 1818
 - 1886
 - 2000
 - 2200
12. Which of the following is *not* a valid reason for the disparity in per capita real GDP across the world?
- A higher level of savings in industrial countries increases investment and real GDP.
 - The number of skilled workers in industrial economies is much higher than in developing countries.
 - More democratic governments increase property rights and political stability.
 - Higher level of expenditures in research & development increases innovation in industrial countries.
 - There are differences in prices across countries.
13. Which of the following government policies is *not* likely to increase productivity?
- encourage free trade
 - encourage population growth
 - encourage foreign investment
 - encourage efficient use of natural resources
 - encourage domestic savings
14. Suppose that the US government increases its spending, while there is no increase in its tax receipts. This causes a(n) _____ in the real interest rate and a(n) _____ in the level of investment.
- increase; increase
 - increase; decrease
 - decrease; increase
 - decrease; decrease
 - no change; no change

15. Which of the following statements about the financial services industry is *false*?
- a. Mutual funds allow individuals with little savings to diversify their stock portfolios.
 - b. Government bonds have no risk because their prices do not fluctuate with interest rates.
 - c. Companies with a large probability of going bankrupt must offer their bondholders a higher interest rate than that on federal bonds.
 - d. Banks earn profits on the spread between the rate charged to borrowers and the rate paid to depositors.
 - e. Stock holders earn dividends in addition to any capital gains (or losses) that may occur as a result of changing stock prices.

Part II: Short Answer (40 points)

1. (10 points) For each of the following transactions list the category or categories of GDP (C, I, G, NX) in which it would be recorded (if any).

- a. GSI buys stock in IBM (a US firm) on the New York Stock Exchange.
- b. GSI buys an Italian sports car (made in Italy).
- c. Ann Arbor spends \$1 million to expand its public libraries.
- d. Ford spends \$1 million on new computer systems (produced by IBM).
- e. An unemployed worker receives \$400/month in unemployment benefits from the government.

2. (12 points) The Bureau of Labor Statistics (BLS) for Econland uses the following basket to calculate its CPI:

Good	Basket	Price in Base Year (1967)
Movies	2	\$0.50
Pizza	2	\$3.00
Soda	5	\$0.10
Outfits	1	\$10.00

The prices for these goods were the following in 1983 and 1997:

Good	Price 1983	Price 1997
Movies	\$2.00	\$3.00
Pizza	\$9.00	\$15.00
Soda	\$0.80	\$1.20
Outfits	\$70.00	\$150

The following questions, based on these data for Econland, require some calculation, and you are welcome to use your calculator. However, if you want to have a chance for partial credit for wrong answers, be sure to show your work in the spaces provided.

- a. The CPI for 1983 was _____, while the CPI for 1997 was _____.
HINT: you should find that the price level doubled between 1983 and 1997.

Now suppose that a Big Mac sandwich at McDonald's cost \$.72 in 1983. Today (1997) it costs \$1.94.

- b. What would the price of the Big Mac be today if it had risen since 1983 at exactly the same rate as the CPI?
- c. By what percentage has the **real** price of the Big Mac increased or decreased since 1983?
- d. What would the price of the Big Mac have been in 1967 if it rose in price from then to 1983 at the same rate as the CPI?
- e. What was the approximate average annual rate of inflation (of the CPI) from 1983 to 1997?

3. a. (4 points) The following is a list of some of the macroeconomic variables that we have met in the course so far. Which of these has the property that, if it increases, output per person in the economy will be larger? Identify your answers by circling each of the variables for which this is true.

- L The labor force
- K The stock of physical capital
- Y Gross Domestic Product
- H The stock of human capital
- C Consumption
- T Net taxes collected by the government
- A The level of technological knowledge
- N The quantity of natural resources

b. (12 points) For each of the following public policies

- i. indicate whether it is conducive to per capita growth, and,
- ii. if it is conducive to per capita growth, use the economic variables above to list the determinant of productivity in which it is most likely to stimulate an increase. The first one is done for you.

Policy	Conducive to Growth?	Stimulated Determinant of Productivity
Investment tax credit	<input checked="" type="radio"/> yes <input type="radio"/> no	K
Enforcement of patent rights for new inventions	<input type="radio"/> yes <input type="radio"/> no	
Tax credit for on-the-job training	<input type="radio"/> yes <input type="radio"/> no	
Tariff on imports of shirts	<input type="radio"/> yes <input type="radio"/> no	
Subsidy for oil exploration	<input type="radio"/> yes <input type="radio"/> no	
Welfare payments to poor mothers	<input type="radio"/> yes <input type="radio"/> no	
Tax exemption for interest on savings	<input type="radio"/> yes <input type="radio"/> no	
Increased government purchases of services	<input type="radio"/> yes <input type="radio"/> no	
Tax on construction	<input type="radio"/> yes <input type="radio"/> no	