Eco202, Spring 2006, First Midterm Exam
Prof. Bill Even

Name (Please print) ________________________________ Assigned Seat ______

Your signature ____________________________________________

ECO202: PRINCIPLES OF MACROECONOMICS
FIRST MIDTERM EXAM
SPRING 2006
Prof. Bill Even

FORM 1

Directions

1. Fill in your scantron with your unique id and form number. Doing this properly is worth 3 points.

2. There are 38 multiple choice questions. Each is worth 3 points.

3. Your grade is determined entirely upon the answers listed on your scantron.

4. You will not receive your scantron back. Be sure to record your answers on your exam so that you will be able to check your answers once the key is posted.

5. You may use a calculator. Cell phones or other devices that may be used to store text are not allowed.

6. You have until the end of the period to finish the exam. No extra time will be allowed.

7. Academic dishonesty is a serious offense. In the event I find someone behaving in a dishonest manner, I will ask that the maximum penalty allowed by the university be imposed.
1. The loss in output caused when the growth rate in real GDP slows is referred to as the:
   a. Okun gap.  
   b. Lucas wedge.  
   c. Keynesian wedge.  
   d. unemployment gap.

2. In 2005, Mexico had a current account deficit of $9 billion. This implies that Mexico
   a. imported more than it exported and was a net borrower.
   b. imported more than it exported and was a net lender.
   c. exported more than it imported and was a net borrower.
   d. exported more than it imported and was a net lender.

To answer the next 6 questions, refer to the information for the U.S. economy given in the table below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Nominal GDP (in billions of $)</th>
<th>GDP Deflator (2000=100)</th>
<th>Working age population (in 1000s)</th>
<th>Employed (in 1000s)</th>
<th>Unemployed (in 1000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>5,803.1</td>
<td>72.5</td>
<td>189,164</td>
<td>125,840</td>
<td>7,047</td>
</tr>
<tr>
<td>2000</td>
<td>9,817.0</td>
<td>100.0</td>
<td>212,577</td>
<td>142,583</td>
<td>5,692</td>
</tr>
<tr>
<td>2003</td>
<td>11,004.0</td>
<td>105.5</td>
<td>221,168</td>
<td>135,461</td>
<td>8,774</td>
</tr>
<tr>
<td>2004</td>
<td>11,728.0</td>
<td>110.4</td>
<td>223,357</td>
<td>147,401</td>
<td>8,149</td>
</tr>
</tbody>
</table>

3. Real GDP (measured in 2000 dollars) for 2004 is:
   a. $10,623 billion  
   b. $12,948 billion  
   c. $11,527 billion  
   d. $9,817.0 billion

4. The inflation rate between 2003 and 2004 was:
   a. 4.9  
   b. 4.6%  
   c. 3.2%  
   d. 10.4%

5. The average annual rate of inflation between 1990 and 2004 was:
   a. 4.1%  
   b. 3.7%  
   c. 3.4%  
   d. 3.0%

6. The unemployment rate in 2004 was:
   a. 3.6%  
   b. 5.5%  
   c. 5.2%  
   d. 4.6%

7. The labor force participation rate in 2004 was:
   a. 69.6%  
   b. 66.0%  
   c. 73.2%  
   d. 74.7%

8. Suppose that between 2004 and 2005, 2 million adults who were previously out of the labor force enter the labor market and 1.7 million find jobs and .3 million are still looking for jobs. This would result in an unemployment rate of ___ and a labor force participation rate of ___.
   a. 5.7%; 69.3%  
   b. 5.4%; 70.5%  
   c. 5.3%; 69.3%  
   d. 3.7%; 73.4%

9. If there is a sudden unexpected increase in the inflation rate,
   a. borrowers would win and lenders would lose.
   b. borrowers would lose and lenders would win.
   c. government tax revenues would increase more than the inflation rate as households move into higher tax brackets.
   d. a and c.
   e. b and c.
10. Suppose that the capital stock is $1,200 billion at the beginning of 2005 and $1,300 billion at the end of 2005. Based on these facts we can conclude that during 2005:
   a. investment was $100 billion.
   b. capital consumption allowance was $100 billion.
   c. capital consumption allowance was $100 billion more than investment.
   d. none of the above.

11. Which of the following equals the expenditure side of GDP?
   a. consumption + investment + government purchases + net exports.
   b. consumption + government purchases + saving + taxes.
   c. wages + rent + interest + profits
   d. wages + rent + interest + profits + indirect business taxes.

Suppose that a small economy produces only apples and oranges and the prices and quantities of each are given in the table below.

<table>
<thead>
<tr>
<th>Year</th>
<th>price of oranges</th>
<th>quantity of oranges</th>
<th>price of apples</th>
<th>quantity of apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>.50</td>
<td>100</td>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td>2003</td>
<td>1</td>
<td>200</td>
<td>2</td>
<td>300</td>
</tr>
</tbody>
</table>

Assume that 2003 is the base year.

12. Nominal GDP in 2002 is _____ and real GDP in 2002 is _____.
   a. $250; $500. b. $500; $250  c. $250; $250  d. none of the above.

13. The GDP deflator in 2002 is:
   a. 50  b. 100  c. 200  d. none of the above.

14. The growth in real GDP would understate the improvement in the standard of living if, over time,
   a. people reduce work hours and take more leisure time.
   b. air quality worsens.
   c. the underground economy shrinks.
   d. all of the above.
To answer the next 2 questions, consider the information below for U.S. wages.

<table>
<thead>
<tr>
<th>Year</th>
<th>Nominal wage in manufacturing</th>
<th>Real wage in manufacturing (1982 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>$3.40</td>
<td>$8.46</td>
</tr>
<tr>
<td>2004</td>
<td>$15.68</td>
<td>$8.24</td>
</tr>
</tbody>
</table>

15. The CPI in 1970 is _______.
   a. 21.7       b. 40.2       c. 248.8       d. none of the above.

16. Between 1970 and 2004,
   a. prices increased at a faster rate than nominal wages.
   b. prices increased at a slower rate than nominal wages.
   c. prices increased at a slower rate than real wages.
   d. none of the above.

17. Based upon the CPI implied by the above information, $1 in 1970 would buy as much as $_____ in 2004.
   a. $2.17      b. $3.67      c. $4.19      d. $4.73

18. Suppose that the CPI bundle includes 10 apples and 10 sodas. In 2000, the price of apples is $.50 and the price of a soda is $.50. In 2005, these prices are $.60 and $.80. Using 2005 as the base year, what is the CPI for 2000?
   a. 71.4       b. 140.0       c. 127.3       d. 116.7

19. If the government adjusted the CPI so that it more accurately reflected the true growth in the cost of living, we should expect that Social Security payments would rise at a (faster, slower) rate and federal tax revenues would rise at a (faster, slower) rate.
   a. faster; faster       b. faster; slower       c. slower; faster       d. slower; slower

20. Suppose that a firm is faced with the following: a real wage of $10, average product of labor equal to $11 and marginal product of labor equal to $8. If the firm hires another hour of labor, profits will:
   a. rise by $1       b. rise by $2       c. fall by $1       d. fall by $2

21. Which of the following are all pro-cyclical?
   a. the unemployment rate, government tax revenues and the budget deficit.
   b. interest rates, the unemployment rate, and the duration of unemployment.
   c. government spending, the budget deficit, and the inflation rate.
   d. tax revenues and the labor force participation rate.
22. Based on the circular flow model, we know that:
   a. Saving + Taxes = Investment + Government purchases + Net exports
   b. Consumption + Investment = Saving + Taxes
   c. Net exports = Saving + Taxes - Consumption
   d. none of the above.

To answer the next 2 questions, refer to the labor market and production functions in the diagram below.

23. If the real wage was currently $12,
   a. there would be a surplus in the labor market.
   b. the unemployment rate would be above the natural rate.
   c. there would be downward pressure on real wages.
   d. all of the above.

24. If the economy is at full employment,
   a. productivity would be $20 and the marginal product of labor would be less than $20.
   b. productivity would be less than $20 and the marginal product of labor would be $20.
   c. productivity would be $10 and the marginal product of labor would be $20.
   d. none of the above.

25. Suppose that there is a simultaneous decrease in the real wage rate and a decrease in the marginal product of labor. Which of the following could explain this?
   a. an increase in labor demand.
   b. an increase in labor supply.
   c. an upward shift in the production function.
   d. a downward shift in the production function.
26. Which of the following would simultaneously lead to a lower real wage and an increase in the number of hours employed?
   a. an increase in the payroll tax rate levied on employers.
   b. an increase in the number of immigrants allowed into the country.
   c. an increase in human capital.
   d. all of the above.

27. Which of the following would shift the production function upwards?
   a. an improvement in home technology.
   b. more human capital.
   c. an increase in immigration.
   d. all of the above.

28. Which of the following would lead to higher real wages and an increase in the number of hours employed?
   a. an increase in human capital.
   b. higher payroll taxes on employers.
   c. an improvement in home technologies.
   d. all of the above.

29. If the Federal Reserve believed that the unemployment rate was currently above the natural rate, they would be likely to:
   a. increase government spending.
   b. decrease government spending.
   c. raise interest rates.
   d. lower interest rates.

30. When wages increase,
   a. the substitution effect leads to decreased work hours and the income effect leads to decreased work hours.
   b. the substitution effect leads to decreased work hours and the income effect leads to increased work hours.
   c. the substitution effect leads to increased work hours and the income effect leads to decreased work hours.
   d. the substitution effect leads to increased work hours and the income effect leads to increased work hours.

31. When the unemployment rate is at the natural rate:
   a. there is no frictional or structural unemployment.
   b. there is no cyclical unemployment.
   c. there is no cyclical or structural unemployment.
   d. there is no structural unemployment.

32. According to the permanent income hypothesis,
   a. a person will save when her income is below her permanent income.
   b. consumption will be less volatile than saving over the business cycle.
   c. if there is an increase in income, a person will save a larger share of the extra income if the change is permanent than if it is temporary.
   d. all of the above.

33. Which of the following would shift the loan demand curve to the left?
   a. households receive news that leads them to believe their incomes will fall next year.
   b. the government introduces a tax incentive for businesses to increase investment.
   c. business expectations about the future profitability of potential investments in capital decline.
   d. none of the above.
34. Which of the following would shift the loan supply curve to the right?
   a. the government introduces a tax incentive for businesses to increase investment.
   b. households receive news that leads them to believe their incomes will rise in the future.
   c. the government introduces tax incentives for households to increase their saving rates.
   d. the government increases taxes on business profits.

35. Which of the following would lead to an increase in the level of investment in the economy and lower interest rates?
   a. government tax incentives for increased saving.
   b. government tax incentives for increased business investment.
   c. a technological breakthrough that creates many profitable investment opportunities.
   d. all of the above.

36. If a worker is unemployed because:
   a. his job was made obsolete by a new technology, he is structurally unemployed.
   b. he decided to move to a different state and is looking for a new job, he is frictionally unemployed.
   c. he is temporarily laid off because his employer's sales fell temporarily, he is cyclically unemployed.
   d. all of the above.

37. The natural rate of unemployment in the economy would increase if:
   a. the proportion of workers who are young fell.
   b. the unemployment insurance system was made more generous.
   c. the minimum wage was reduced.
   d. all of the above.

38. Over the past two years, the Federal Reserve has:
   a. increased interest rates in an attempt to reduce inflationary pressures.
   b. increased interest rates in an attempt to keep unemployment low.
   c. decreased interest rates in an attempt to reduce inflationary pressures.
   d. decreased interest rates in an attempt to keep unemployment low.
Form 1

1  B
2  A
3  A
4  B
5  D
6  C
7  A
8  B
9  D
10 D
11 A
12 A
13 A
14 A
15 B
16 A
17 D
18 A
19 C
20 D
21 D
22 A
23 D
24 A
25 B
26 B
27 B
28 A
29 D
30 C
31 B
32 B
33 C
34 C
35 A
36 D
37 B
38 A