Directions

1. Fill in your scantron with your unique id and form number. Doing this properly is worth the equivalent of 1 question.

2. There are 42 multiple choice questions.

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

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

5. You have until the end of the period to finish the exam. Additional time may be purchased at a price of 5 percentage points per minute.

6. 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.
To answer the next 5 questions, refer to the information for the U.S. economy provided below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Real GDP (in billions of $)</th>
<th>Nominal GDP (in billions of $)</th>
<th>Civilian Working Age Population (in 1000s)</th>
<th>Civilian Labor Force (in 1000s)</th>
<th>Unemployed (in 1000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>9,817.0</td>
<td>9,817.0</td>
<td>212,577</td>
<td>142,583</td>
<td>5,692</td>
</tr>
<tr>
<td>2006</td>
<td>11,319.4</td>
<td>13,194.7</td>
<td>228,815</td>
<td>151,428</td>
<td>7,001</td>
</tr>
<tr>
<td>2007</td>
<td>11,658.9</td>
<td>13,970.5</td>
<td>231,867</td>
<td>153,124</td>
<td>7,078</td>
</tr>
</tbody>
</table>

1. Based on the information provided, the rate of inflation between 2006 and 2007 was:
   a. 3.1%  b. 2.8%  c. 2.1%  d. 1.9%

2. Based on the information provided, the unemployment rate in 2007 was:
   a. 4.6%  b. 4.2%  c. 5.4%  d. 5.1%

3. Based on the information provided, the GDP deflator in 2007 was:
   a. 83.4  b. 96.7  c. 119.8  d. 136.5

4. Calculate the GDP deflator for 2000 and 2007 using the above information. Based on your calculations, what is the average annual rate of inflation between 2000 and 2007?
   a. 3.1%  b. 2.6%  c. 2.1%  d. 1.7%

5. In 2007, the number of people employed in the U.S. was
   a. 146.0 million  b. 224.8 million  c. 153.1 million  d. none of the above

6. In the fourth quarter of 2011, business inventories increased by $56 billion. This means that during the fourth quarter,
   a. production exceeded sales by $56 billion
   b. sales exceed production by $56 billion
   c. depreciation exceeded gross investment.
   d. gross investment exceeded depreciation

7. Suppose that between 2007 and 2008, 1 million people who weren’t working or looking for work start searching for a job. This would cause the unemployment rate to ______ and the labor force participation rate to ______.
   a. rise; rise.  b. rise; not change.  c. fall; fall.  d. none of the above..
8. Which of the following would cause the growth in real GDP to overstate the improvement in the standard of living over time?
   a. if the average person reduces hours worked over time.
   b. if the environment is worsening over time.
   c. if people increase the amount of household production over time.
   d. none of the above.

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

Suppose that an 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>2005</td>
<td>1</td>
<td>500</td>
<td>1</td>
<td>1000</td>
</tr>
<tr>
<td>2006</td>
<td>2</td>
<td>800</td>
<td>3</td>
<td>1500</td>
</tr>
</tbody>
</table>

10. Assuming that 2005 is the base year, nominal GDP in 2006 is _____ and real GDP in 2006 is _____.
   a. $6100; $6100
   b. $6100; $2300.
   c. $2300; $6100
   d. none of the above.

11. Assuming that 2005 is the base year, the GDP deflator is ____ in 2005 and ____ in 2006.
   a. 265; 370
   b. 370; 100
   c. 100; 370
   d. 100; 265

12. Between 1990 and 2005, the average nominal wage in the U.S. increased from $10.20 to $16.13. Over the same period, the real wage (in 1982 dollars) rose from $7.66 to $8.18. Based on this information, you can conclude that
   a. the price index rose from 133 to 197 between 1990 and 2005.
   b. nominal wage growth was less than the inflation rate between 1990 and 2005.
   c. nominal wage growth exceeded the inflation rate between 1990 and 2005.
   d. both a and b.
   e. both a and c.
13. Between 1980 and 2005, the CPI rose from 82.4 to 195.3. If a worker received a nominal wage of $10 per hour in 1980, she would have to receive a nominal wage of ____ in 2005 in order that her real wage would be unchanged.
   a. $19.53
   b. $23.70
   c. $18.43
   d. $12.13

14. It is well known that the growth in the CPI is a biased measure of the true growth in the cost of living. Because of this bias, government expenditures on Social Security grow (faster, slower) than the growth in the true cost of living and government tax revenues grow (faster, slower) than the growth in the true cost of living. [Keep in mind that the federal income tax system is indexed for inflation.]
   a. slower; faster
   b. slower; slower
   c. faster; faster
   d. faster; slower

15. If the economy is producing GDP above potential GDP, employment is (above, below) full employment and the unemployment rate is (above, below) the natural rate of unemployment.
   a. above; above
   b. above; below
   c. below; below
   d. below; above

16. When the economy is at full employment,
   a. there is no structural unemployment.
   b. there is no cyclical unemployment.
   c. there is no frictional unemployment.
   d. all of the above.

17. If a worker loses her job in the automobile industry because there is a permanent decrease in the demand for cars produced in the U.S., this worker would be experiencing:
   a. frictional unemployment
   b. structural unemployment
   c. cyclical unemployment
   d. natural unemployment
18. When the economy goes into recession, the increase in the unemployment rate tends to *(understate, overstate)* how badly the labor market is performing because it doesn’t account for the *(increase, decrease)* in work hours for those who remain employed.

_____.

a. overstate; increase
b. overstate; decrease
c. understate; increase
d. understate; decrease

19. If everyone expects inflation of 5% over the next year and inflation actually turns out to be 2%,

a. lenders would win and borrowers would lose.
b. borrowers would win and lenders would lose.
c. both lenders and borrowers would win.
d. both lenders and borrowers would lose.

20. Suppose that the capital stock in the U.S. falls from 1,800 billion to 1,700 billion between 2006 and 2007. This implies that:

a. gross investment in 2006 was $100 billion.
b. net investment in 2006 was $100 billion.
c. in 2006, depreciation (capital consumption allowance) exceeded gross investment by $100 billion.
d. none of the above.

21. Suppose that a person’s wealth grows from $100,000 to $120,000 during 2010 and they had capital losses of $5,000. This implies that during 2010, the person’s savings were

a. $15,000
b. $20,000
c. $25,000
d. none of the above

22. Suppose that Japan has a government budget surplus and investment equals saving. This implies that Japan’s imports are *(greater, less)* than their exports and Japan is *(borrowing, lending)* internationally.

a. greater; borrowing.
b. greater; lending.
c. less; borrowing
d. less; lending.
To answer the next 2 questions, refer to the diagram below.

23. If the economy is at full employment and the labor market is in equilibrium, productivity would be _____ and the marginal product of labor would be _____.
   a. $5; $20
   b. $20; $5
   c. above $20; above $5
   d. below $20; below $5.

24. Which of the following would simultaneously increase the real wage and increase potential GDP?
   a. if transfer programs were made less generous.
   b. if the population in the U.S. was reduced.
   c. if worker skills were improved through better education.
   d. all of the above.

25. Which of the following would shift the production function upwards?
   a. an improvement in technology.
   b. an increase in the capital stock.
   c. an increase in worker skills.
   d. all of the above.
26. Holding the capital stock and technology constant, increased immigration would
a. reduce wages
b. reduce productivity
c. increase potential GDP
d. all of the above.

27. The labor demand curve is the same as:
   a. the marginal product of labor curve.
   b. the average product of labor curve.
   c. the real wage curve.
   d. the production possibilities curve.

28. Consider the market for loanable funds. Which of the following would lead to
   increased investment and lower interest rates?
   a. an increase in household saving.
   b. an increase in investment demand.
   c. an increase in the government budget deficit.
   d. all of the above.

29. Suppose that the U.S. increases its imports and there is no change in exports or
   the government budget deficit. This would necessitate either:
   a. an increase in saving or investment.
   b. an increase in saving or a decrease in investment.
   c. a decrease in saving or an increase in investment.
   d. a decrease in saving or investment.

30. Suppose that personal consumption expenditure=100, private saving=10,
   government purchases of goods and services=20, net taxes=20, imports=20 and
   exports=10. What is the value of gross private investment?
   a. 10     b. 20     c. 30     d. 40

31) When wages rise, the income effect will cause workers to work (more, less) hours
    and the substitution effect will cause them to work (more; less) hours.
    a. more; more.
    b. more; less.
    c. less; less.
    d. less; more.
32. The Ricardo-Barro effect is that an increase in the government budget deficit by $1 billion will
a. decrease household saving in the economy by $1 billion and increase interest rates.
b. decrease household saving in the economy by $1 billion and have no effect on interest rates.
c. increase household saving in the economy by $1 billion and have no effect on interest rates.
d. increase household saving in the economy by $1 billion and increase interest rates.

33. If banks discover that the number of loans requested far exceeds the number of loans that they have available, this is an indication that the interest rate is (above, below) the equilibrium interest rate and that there is a (shortage, surplus) of loans.
a. above; shortage.
b. above; surplus.
c. below; shortage.
d. below; surplus.

34. Assuming no Ricardo-Barro effect, an increase in the government budget deficit should cause:
a. higher interest rates and less investment.
b. higher interest rates and more investment.
c. lower interest rates and less investment.
d. lower interest rates and more investment.

35). If the inflation rate is 3% and the real interest rate is 2%, the nominal interest rate must be:
a. 1%
b. 1.5%
c. 5%
d. -1%

36. Which of the following would lead to higher interest rates?
a. households receive news that makes them believe that their incomes will rise in the future.
b. the value of household wealth increases due to an unexpected increase in the value of their stock holdings.
c. a technological innovation that results in a large increase in capital purchases by business.
d. all of the above.
37. Some U.S. politicians claim that China manipulates its currency. The argument is that China has pursued policies to make its currency too (cheap, expensive) relative to the dollar and this has caused the U.S. to import (more, less) from China than it exports to China.
   a. cheap; more
   b. cheap; less
   c. expensive; more
   d. expensive; less

38. If a country is a net borrower from the rest of the world, the country
   a. must import more than it exports
   b. must export more than it imports
   c. must have a government budget deficit.
   d. must have a government budget surplus.

39. Some Chinese politicians claim that the trade imbalance between the U.S. and China is not due to manipulation of its exchange rate. Rather, the trade imbalance is due to the fact that
   a. the U.S. runs large government budget deficits
   b. U.S. households have high savings rates
   c. the Chinese have low savings rates
   d. all of the above.

40. Which of the following would lead to increased household saving?
   a. a permanent increase in household income
   b. a permanent decrease in household income
   c. a temporary increase in household income
   d. a temporary decrease in household income

41. “Pro-growth” policies attempt to increase potential GDP. Which of the following policies would be “pro-growth”?
   a. policies aimed at increasing the level of saving since this stimulates investment and shift the production function upward.
   b. a more open immigration policy since this would increase labor supply.
   c. policies that increase the level of education in the economy since this would shift the production function upward and increase labor demand.
   d. all of the above.

42. As the baby boomers move from their 50s into retirement, the average savings rate in the U.S. will be affected. As a result, we should expect to see:
   a. higher interest rates and less investment.
   b. higher interest rates and more investment.
   c. lower interest rates and less investment.
   d. lower interest rates and more investment.