PLEASE DO NOT WRITE ON THIS EXAMINATION FORM.

1. Which of the following statements is correct?
   a. Real GDP is the total market value of the final goods and services produced in America for sale in a year valued in the prices of 1992.
   b. Your buying stock in the stock market is an example of investment spending.
   c. Potential Real GDP is always greater than Equilibrium Real GDP.
   d. Social security and welfare are examples of spending on infrastructure.
   e. All of the above

2. The period of the business cycle in which real GDP is increasing is called the:
   a. expansion     b. peak     c. recession     d. trough     e. stagflation

3. Assume that, in the population, 95 million people worked for pay last week, 5 million people did not work for pay but had been seeking a job, 5 million people did not work for pay and had not been seeking a job for the past several months, and 45 million were under age 16. The unemployment rate, given these numbers, is:
   a. 5%     b. 8%     c. 10%     d. 20%     e. 45%

4. A type of unemployment in which workers are in-between jobs or are searching for new and better jobs is called ______ unemployment:
   a. frictional     b. cyclical     c. structural     d. turnover

5. Consider three consumer goods: 100 of Good A, 100 of Good B, and 100 of Good C. In the base year, Good A sold at a price of $1, Good B sold at a price of $1, and Good C sold at a price of $1. In the current year, Good A sold at a price of $3, Good B sold at a price of $5, and Good C sold at a price of $10. The Consumer Price Index (CPI) for the current year is:
   a. 100     b. 300     c. 500     d. 600     e. 1000

6. Which of the following is a "loser" from unexpected inflation?
   a. workers with COLAs     c. people who own Treasury Bills
   b. the middle class     d. people who own homes and have fixed-rate mortgages

7. If the nominal interest rate on a checking account is 2% and the inflation rate is 3% this year, the real interest rate is:
   a. 5%     b. 2%     c. 2/3%     d. –1%     e. 3%

8. Which of the following would cause the demand curve for automobiles to shift to the left?
   a. an increase in the price of the automobiles
   b. an increase in the interest rate paid to borrow money to pay for the automobile
   c. an increase in buyers' incomes
   d. an increase in the cost of production of automobiles

Please Turn Over
9. Suppose it is announced that industry analysts are predicting that decreased oil supplies from Iraq will cause gasoline prices to rise, beginning next month. In the current week, the announcement would:
   a. shift the supply of gasoline right       c. shift the demand for gasoline left
   b. shift the demand for gasoline right       d. have no effect on the demand or supply of gasoline

10. "At the price of $500, tickets for the Super Bowl are expensive. Yet, the are long lines of people who wish to buy them. Many people who desire tickets will not be able to find them."
    From this quote, we know that the price of Super Bowl tickets must be:
    a. below equilibrium   b. above equilibrium   c. equal to equilibrium

11. Assume that the market for computers begins in equilibrium. Then, there is a decrease in a price of Pentium processors used in the production of computers. When the new equilibrium is reached,
    a. the price and quantity of computers will both have risen
    b. the price and quantity of computers will both have fallen
    c. the price of computers will have risen and the quantity will have fallen
    d. the price of computers will have fallen and the quantity will have risen

12. Assume that the market for the stock of Microsoft begins in equilibrium. Then, both buyers and sellers expect that the new Linux (a competitor of Microsoft Windows) will be a large success, reducing Microsoft sales. When the new equilibrium is reached,
    a. the price and quantity of the stock will both have risen
    b. the price and quantity of the stock will both have fallen
    c. the quantity of the stock will fall and the price will rise
    d. the quantity of the stock will fall but the effect on price cannot be determined
    e. the price of the stock will fall but the effect on quantity cannot be determined

13. Assume that the market for Mexican pesos begin in equilibrium. Then, the Mexican economy experiences a severe recession. Because of the recession, the Mexican companies lower their prices. As a result of the recession and lower prices in Mexico:
    a. the dollar depreciates and the peso appreciates  c. the dollar and the peso both appreciate
    b. the dollar appreciates and the peso depreciates  d. the dollar and the peso both depreciate

14. Which of the following is an example of "portfolio investment"?
    a. An American places funds in a savings account in Canada
    b. Tokyo Bank of Japan buys Union Bank of the United States
    c. Saturn Corp. (owned by General Motors) builds a new factory in Tennessee
    d. An American puts $10,000 into a money market fund
    e. All of the above
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15. Which of the following would cause the aggregate demand curve to shift to the right?
   a. an increase in purchases by the federal government
   b. an increase in real interest rates
   c. an appreciation of the American dollar
   d. a decrease in the money supply

16. Assume that an economy begins in macroeconomic equilibrium. Then, taxes are significantly decreased. As a result of this change:
   a. there is expansion and inflation in the US
   b. there is recession and deflation in the US
   c. there is stagflation in the US
   d. there is expansion and deflation in the US

17. A large increase in oil prices, such as the ones occurring in 1973 and 1979, will cause
   a. inflation and expansion
   b. recession and disinflation
   c. inflation and recession
   d. expansion and deflation

18. Assume that production in the United States is valued at $10,000. National income is therefore $10,000. Of their income, workers pay $1,000 in taxes, save $500, spend $8,000 on consumer goods, and spend $500 on imports. Businesses spend $1,000 in new investment spending. And, foreigners spend $500 on exports. In order to avoid any problems of inflation or unemployment, the government should have a budget deficit or surplus of:
   a. 0
   b. $500 surplus
   c. $500 deficit
   d. $1,000 deficit
   e. $2,000 deficit

19. From 1990 to 1995, the U.S. economy was in a recessionary gap. According to the classical economists, which of the following should have occurred?
   a. wages should have fallen which would cause more workers to be hired
   b. prices should have fallen which would increase consumer spending
   c. interest rates should have fallen which would increase consumer and investment spending
   d. all of the above should have occurred

20. Which of the following statements is/are true about the classical quantity theory of money?
   a. The equation of exchange is \(MV = PQ\)
   b. The classical economists assumed that \(V\) would rise when real interest rates rise
   c. The classical economists concluded that increases in the money supply cause increases in real GDP and nothing else
   d. all of the above
21. Assume that the United States and Great Britain are both on the **Gold Standard**. There is inflation in the United States but not in Great Britain. As a result of the inflation in the United States,
   a. Gold would leave the United States and go to Great Britain
   b. Gold would leave Great Britain and go to the United States
   c. The American dollar would depreciate
   d. The American money supply would increase

22. At an income of $100,000, I spent $90,000 on consumer goods. When my income rose to $200,000, I spent $160,000 on consumer goods. My marginal propensity to consume is:
   a. 0.9     b. 0.8     c. 0.7     d. 1    e. $70,000

23. **National Disposable**

<table>
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<th>Consumption</th>
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<th>Government</th>
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</table>

Using these numbers, the **equilibrium real GDP** (equal to National Income) is:
   a. 300    b. 400    c. 500    d. 600    e. 700

24. Which of the following would cause consumption to rise?
   a. the GDP Deflator rises
   b. a greater proportion of the population is between age 20 and 30
   c. transitory income increases
   d. income is taken from poor people and given to rich people

25. Which of the following would cause business investment spending to rise?
   a. an increase in real interest rates from 5% to 8%
   b. a decrease in the corporate profits tax rate from 48% to 34%
   c. a reduction of the investment tax credit from 10% to 2%
   d. sales falling in relation to capacity from 90% to 60%

**CONTINUED**
26. Assume that net exports increase by $1 billion. Equilibrium Real GDP will rise by more than $1 billion. Explain why. (i.e., why is there a multiplier?).
   a. an increase in net exports appreciates the dollar causing a further increase in net exports
   b. an increase in net exports causes an increase in tax revenues which increases government spending
   c. an increase in net exports increases income causing an increase in induced consumption
   d. an increase in net exports causes an increase in the money supply

27. The largest transfer in the federal budget is:
   a. defense   b. education   c. social security   d. welfare   e. police

28. The largest tax collected at the federal government level is the:
   a. income tax   b. sales tax   c. property tax   d. social security tax

29. A person had an income of $20,000 last year and paid $10,000 in tax. This year, the person had an income of $100,000 and paid $30,000 in tax. The person’s marginal tax rate is:
   a. 25%   b. 30%   c. 50%   d. 100%

30. The tax in question 29 is:
   a. progressive   b. regressive   c. proportional

31. Assume that Equilibrium GDP is $4,000 billion. Potential GDP is $5,000 billion. The marginal propensity to consume is 4/5 (0.8). By how much and in what direction should government purchases be changed?
   a. increase by $1,000 billion   c. increase by $100 billion
   b. decrease by $1,000 billion   d. increase by $200 billion

32. Using the numbers in question 31, by how much should taxes be changed?
   a. increased by $1,000 billion   c. decreased by $200 billion
   b. decreased by $1,000 billion   d. decreased by $250 billion

33. Assume that Equilibrium Real GDP is $20,000 while Potential Real GDP is $15,000. The marginal propensity to consume is 9/10. Assume that government decides to lower taxes by $1,000. To pay for this, it lowers government purchases by $1,000. As a result of these two changes, what is the new Equilibrium Real GDP?
   a. $19,000   b. $20,000   c. $21,000   d. $14,000   e. $1,000
34. Which of the following statements is true about **the national debt**?
   a. In total, it is higher now than it has ever been
   b. Most of it is owed by the federal government to foreigners
   c. It means that a tremendous burden is being passed to our children
   d. Because of it, the United States is on the verge of bankruptcy
   e. All of the above

35. If the **official federal budget** shows a **deficit** of $200 billion while the **structural budget** is has a **surplus** of $200 billion, it can be concluded that:
   a. the intent of fiscal policy is very expansionary
   b. there is hyperinflation
   c. the unemployment rate is well above the natural rate
   d. state and local governments have large surpluses
   e. off-budget spending is counted in the official deficit but not in the structural deficit

36. The **Phillips curve** describes the relationship between:
   a. the federal budget deficit and the trade deficit
   b. savings and investment
   c. the unemployment rate and the inflation rate
   d. marginal tax rates and tax revenues

37. Several adjustments have been suggested to the official budget deficit to be able to measure the effects of the budget deficit on the economy. For which of the following would the adjusted deficit be **larger** than the official budget deficit?
   a. state and local budget surpluses need to be added to the official budget deficit
   b. the effects of unemployment need to be taken out of the official budget deficit
   c. the effects of inflation need to be taken out of the official budget deficit
   d. off-budget spending needs to be added to the official budget deficit

38. Which of the following is included in **M-1**?
   a. gold                  c. checkable deposits                   e. stock
   b. credit cards      d. money market mutual funds

39. Which of the following is true about **the Federal Reserve System**?
   a. its seven Board members are appointed by the President of the United States
   b. its main policy-making body is called the CBO
   c. it insures checking accounts against bank failure
   d. it accepts deposits from individuals and makes loans for mortgages
   e. All of the above

CONTINUED
40. Assume that the Fed increases the monetary base by $1 billion when the reserve requirement is 1/7. As a result, the money supply will:
   a. increase by $1 billion   c. increase by $7 billion
   b. decrease by $1 billion   d. increase by $143 million

41. If the Fed wishes to decrease (tighten) the money supply, it should:
   a. buy Treasury securities in the open market
   b. raise the discount rate
   c. lower the reserve requirements
   d. raise marginal tax rates

42. The demand for money will fall if:
   a. Real GDP rises                      c. the GDP Deflator rises
   b. real interest rates rise            d. people expect deflation soon

43. An increase in the money supply causes:
   a. interest rates to fall, investment spending to rise, and aggregate demand to rise
   b. interest rates to rise, investment spending to rise, and aggregate demand to rise
   c. interest rates to rise, investment spending to fall, and aggregate demand to fall
   d. interest rates to fall, investment spending to fall, and aggregate demand to fall

44. If individuals forecast future prices by examining the rates of inflation of the present and recent past, they are using:
   a. adaptive expectations   c. inflationary expectations
   b. rational expectations   d. structural expectations

45. If the actual unemployment rate is below the natural rate of unemployment, it would be expected that:
   a. the rate of inflation would increase   c. the Phillips curve would shift to the left
   b. wages would fall                     d. the natural rate of unemployment would fall

46. According to the monetarist acceleration theory, in the long-run,
   a. the actual unemployment rate will be below the natural rate of unemployment
   b. the actual unemployment rate will be equal to the natural rate of unemployment
   c. the actual inflation rate will be equal to the natural inflation rate
   d. the budget deficit will be equal to zero
   e. the money supply will be growing at a constant rate per year

PLEASE TURN OVER
47. According to the **monetarists**, in the **long-run**, the **Phillips Curve** is:
   a. vertical                     c. downward-sloping
   b. horizontal                d. upward-sloping

48. Which of the following statements is true about **supply-side economics**?
   a. The main change made by the tax laws of 1981 and 1986 was to increase marginal tax rates in order to balance the budget
   b. The Laffer Curve says that, if marginal tax rates fall, tax revenues will rise, and the budget deficit will decrease
   c. If the tax laws of 1981 and 1986 had had their intended effect, consumption would have risen, causing an increase in both real GDP and in the price level
   d. All of the above

49. Those who **oppose a Constitutional amendment to require a balanced federal budget** would make which of the following arguments:
   a. Deficits are bad because they can cause crowding out
   b. Such an amendment could force the government to undertake policies that would increase a recessionary gap
   c. Deficits can cause inflation by increasing aggregate demand
   d. Budget deficits can cause an increase in the trade deficit by appreciating the dollar

50. **If the money supply is:**  **The interest rate is:**

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<thead>
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<th>Interest Rate</th>
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<td>160 billion</td>
<td>4%</td>
</tr>
<tr>
<td>120 billion</td>
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**If the interest rate is:**  **Investment spending is:**

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<tbody>
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</table>

Assume that equilibrium GDP is $400 billion, potential GDP is $500 billion, the marginal propensity to consume is 9/10, the interest rate is 8%, investment spending is $20 billion, the money supply is $120 billion, and the reserve requirement is 1/10. **By how much and in what direction should the Fed change the monetary base?**

a. increase it by $20 billion  d. increase it by $2 billion
   b. decrease it by $100 billion  e. decrease it by $10 billion
   c. increase it by $90 billion

**END OF EXAMINATION**
This course has involved a macroeconomic history of the 20th century. This century has seen major economic problems, including inflation, recessions and a Great Depression, slow economic growth, budget deficits, and trade deficits.

1. Let us consider first the problem of inflation. The United States has experienced persistent inflation (inflationary gaps) during the 1960s and especially throughout the 1970s. But there has been some inflation every year since 1954.
   a. Inflation is measured by both the Consumer Price Index (CPI) and GDP Deflator. Explain how each of these is calculated? What arguments have been made to support the assertion that the Consumer Price Index overstates the rise in the cost of living?
   b. Then, explain why inflation is a problem for the United States. In particular, consider the effects of unexpected inflation on the distribution of wealth (who gains and who loses?) and its effects on the growth of real GDP over time.
   c. Explain the causes of the inflation of the 1960s and of the 1970s. Name as many causes as you can. Illustrate your answer using the aggregate demand, aggregate supply, potential real GDP graph. Be sure to include in your answer the causes of the stagflation of the 1970s.
   d. Explain why the inflation rates were reduced so dramatically in the 1980s and 1990s. What fiscal and monetary policies were used to reduce the inflation rates? Again, illustrate your answer using the aggregate demand, aggregate supply, potential real GDP graph. (20 points for Question 1)

2. Second, let us consider the problem of recessions and depression. There was a Great Depression in the 1930s. And since 1961, there have been four main recessions.
   a. Explain how the unemployment rate is measured. What criticisms can be made of the official unemployment rate measure?
   b. Explain why recessions and recessionary gaps are problems for the United States. (Be sure to define each term.) That is, what are the bad effects that result from them?
   c. Explain the causes of the Great Depression of the 1930s and the causes of the recessions since World War II. Name as many causes as you can. Illustrate your answer using the aggregate demand, aggregate supply, potential real GDP graph.
   d. Explain why the Great Depression and these recessions eventually ended. First, what arguments are given by Classical economists that these would end automatically, if the
government just did nothing. Second, what fiscal and monetary policies have been used to end the recessions? Again, illustrate your answer using the aggregate demand, aggregate supply, potential real GDP graph. (20 points for Question 2)

3. Third, after 1973, the United States experienced a problem of very slow economic growth. Especially, productivity grew slower than in the past and slowly in comparison to other countries.
   a. How do we measure economic growth? How do we measure productivity?
   b. What are the problems that have resulted from the slow period of economic growth?
   c. What monetary and fiscal policies were undertaken to increase economic growth? To what extent were they successful? (10 points for Question 3)

4. Fourth, from 1981 to 1998, the United States had very high budget deficits.
   a. Define "budget deficit" and "national debt", highlighting the difference.
   b. How is the official budget deficit measured? To properly measure the effects of these budget deficits on the economy, what changes are needed to the official budget deficit calculation? WHY? When these changes are made, what does the data show about the adjusted budget deficits?
   c. What are the effects of budget deficits on the American economy? Consider ways by which budget deficits may be good for the American economy and ways by which budget deficits may be harmful to the American economy.
   d. Is the national debt of over $5 ½ trillion an economic problem for the United States? Explain why or why not. (15 points for Question 4)

5. Since the early 1980s, the United States has also experienced high trade deficits.
   a. Define “trade deficit”. How is it measured?
   b. Explain the three systems for international economic relations that existed in the 20th century: the Gold Standard, the Bretton Woods System, and the system of floating exchange rates.
   c. One of the main changes in the world in the 20th century was the growth of international trade. First, explain why this occurred? Then, state why this has contributed to economic growth?
   d. Based on the material covered in the course, explain why the trade deficits of the 1980s and 1990s may have occurred. Consider as many reasons as you can. (15 points for Question 5)

6. This course has explored different economic philosophies as to how the American economy operates and what should be done to correct economic problems. The course has considered the Classical, Keynesian, Monetarist, and Supply-Side philosophies, the philosophies that have been most important in the 20th century.
   At the time of the examination, you will be given a situation. The information you will be given will include real GDP, the growth of real GDP, potential real GDP, real interest rates, consumer spending, business investment spending, government spending, tax revenues, the money supply, the inflation rate, and the unemployment rate, and the natural rate of unemployment.
a. Given the situation, what would a **Classical economist** recommend be done? Explain why.

e. Given this situation, what would a **Keynesian economist** recommend be done? Explain why.

f. Given this situation, what would a **Monetarist economist** recommend be done? Explain why.

g. Given this situation, what would a **Supply-side economist** recommend be done? Explain why.

In your answer to these questions, show the differences between these views of the American economy. *(20 points for Question 6)*