Section I, Multiple Choice (36 points): Circle the letter in front of the best answer.

1. Social Security is a “pay-as-you-go” system. In a pay-as-you-go system
   a. current retirees are paid out of the taxes of current workers.
   b. current workers are paid out of the taxes of current retirees.
   c. future retirees will be paid out of the taxes of today’s workers.
   d. today’s retirees are paid out of the taxes of future workers.

2. Our Social Security system is currently structured so that
   a. Social Security taxes are regressive, but Social Security benefits are progressive.
   b. Social Security taxes are progressive, but Social Security benefits are regressive.
   c. both Social Security taxes and Social Security benefits are progressive.
   d. both Social Security taxes and Social Security benefits are regressive.

3. How does one use the “Rule of 72”?
   a. Divide the interest rate into 72, with the result being the doubling time of money.
   b. Multiply the interest rate by 72, with the result being the doubling time of money.
   c. Subtract the interest rate from 72, with the result being the doubling time of money.
   d. Add the interest rate to 72, with the result being the doubling time of money.

4. The two basic types of mutual funds are
   a. domestic funds and foreign funds.
   b. growth funds and income funds.
   c. safe funds and risky funds.
   d. Dow-Jones funds and NASDAQ funds.

5. A middle-aged autoworker is laid off from his job after improved technology (robotics)
   reduces the need for workers. This type of unemployment is
   a. frictional.
   b. structural.
   c. cyclical.
   d. none of the above.

6. Discouraged workers are people who
   a. quit their jobs because they are dissatisfied with their managers.
   b. quit their jobs because they are dissatisfied with their wages.
   c. refuse to take jobs that are offered to them because they want to remain on welfare.
   d. have been unemployed for a long time and have given up on finding suitable employment.

7. Inflation that can be attributed to an increase in input (resource) prices is known as
   a. demand pull inflation.
   b. cost push inflation.
   c. profit push inflation.
   d. general inflation.

8. The Consumer Price Index measures
   a. changes in prices, holding quantities constant.
   b. changes in quantities, holding prices constant.
   c. changes in both prices and quantities.
   d. None of the above

9. Which of the following correctly completes this sentence: “Gross Domestic Product is....”
   a. the total quantity of all final goods and services produced annually within a country.
   b. the total market value of all goods and services produced annually within a country.
   c. the total market value of all final goods and services produced annually by a country’s citizens.
   d. the total market value of all final goods and services produced annually within a country.
10. Which of the following is a tool of expansionary fiscal policy?
   a. An increase in income tax rates
   b. A reduction in welfare payments
   c. An easing of government pollution restrictions
   d. An increase in government purchases of goods and services

11. Using the Aggregate Demand - Aggregate Supply framework, how would you explain increases in the price level and unemployment that occur simultaneously?
   a. Aggregate Demand shifted to the left while Aggregate Supply remained stable.
   b. Aggregate Demand shifted to the left while Aggregate Supply shifted to the right.
   c. Both Aggregate Demand and Aggregate Supply shifted to the left.
   d. Aggregate Demand remained stable while Aggregate Supply shifted to the left.

12. The intent of supply-side economics is for policy-makers to design policies that
   a. provide tighter control over the supply of oil coming into our country.
   b. limit the supply of industrial air and water pollution.
   c. shift the Aggregate Supply function to the right.
   d. encourage an increase in the supply of labor from

13. Which of the following is the appropriate policy to follow if the economy is experiencing high rates of inflation?
   a. Decreasing personal income tax rates
   b. Decreasing the rate of growth of the money supply
   c. Increasing government spending
   d. None of the above

14. Which of the following is a tool of expansionary fiscal policy?
   a. Increased taxes
   b. Increased military expenditures
   c. Reductions in government transfer payments
   d. Increased government regulations

15. Which of the following is true with respect to the United States’ total indebtedness?
   a. We owe most of our debt to foreign citizens.
   b. Each U.S. citizen, on average, “owes” more than $100,000 in national indebtedness.
   c. The U.S. national indebtedness rose substantially during the 1980s and early 1990s, but dropped considerably during the latter part of the 1990s.
   d. The U.S. total indebtedness is approximately six times larger than the (annual) value of the U.S. gross domestic product.

16. How does the level of the U.S. national debt compare with the U.S. annual Gross Domestic Product (GDP)?
   a. The U.S. national debt is less than ten percent of its annual GDP.
   b. The U.S. national debt is approximately two-thirds of its annual GDP.
   c. The U.S. national debt is more than double its annual GDP.
   d. It is inappropriate to compare the U.S. national debt to its annual GDP.

17. The growth rate of real GNP per capita can be
   a. positive.
   b. zero.
   c. negative.
   d. all of the above.

18. Most of the world’s poorest countries are located in
   a. Sub-Saharan Africa.
   b. South Asia.
   c. Southeast Asia.
   d. the former Soviet Union.
Section II, Direct Questions (30 points): Answer all six of the following questions. You will be graded on your five best responses.

A. Identify three proposals for “saving Social Security”, and briefly explain why you might support or reject each proposal. Which do you consider to be the best proposal?

B. Which type of inflation is more detrimental to the economy -- cost-push or demand-pull? Explain.

C. Which type of unemployment is more easily overcome -- structural or frictional? Explain.

D. The text in Chapter 8 showed Aggregate Supply with horizontal, upward-sloping, and vertical segments. What is the economic meaning behind each of these segment? How does a shift of Aggregate Demand affect Real GDP and the price level in each of these segments?
E. If government policy makers wish to bring about an increase in the equilibrium level of real GDP, should they choose (a) a decrease in government expenditures, (b) a decrease in tax rates, or (c) a decrease in the money supply? Explain.

F. Use the phrases “cost-push” and “demand-pull” to briefly explain U.S. economic events during the 1960s and 1970s.

Section III-A, Problems (20 points)

1. If the year 2000 is established as the new base year for the Consumer Price Index (CPI), what would be the value of the CPI in 2001 and 2002 if the rate of inflation is 6.2 percent in 2001 and 5.6 percent in 2002?

2. What is the rate of inflation in our economy if the CPI measures 120.0 in the previous year and 126.0 in the current year?
3. Calculate the unemployment rate using the following data from the Bureau of Labor Statistics:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of adult citizens</td>
<td>104 million</td>
</tr>
<tr>
<td>Total employed in full-time jobs</td>
<td>64 million</td>
</tr>
<tr>
<td>Total employed in part-time jobs</td>
<td>10 million</td>
</tr>
<tr>
<td>Total unemployed and actively seeking work</td>
<td>6 million</td>
</tr>
<tr>
<td>Total unemployed and not actively seeking work</td>
<td>24 million</td>
</tr>
</tbody>
</table>

4. Your grandmother’s will gives you first choice between two alternative investments, either of which you can collect in 24 years. Investment A is a $10,000 government treasury bill with a six percent guaranteed return. Investment B is a $6,000 government treasury bill with a nine percent guaranteed return. Which will you choose? Explain and show your calculations.

5. Use the Aggregate Demand - Aggregate Supply framework to show and explain the connection between the “Y2K bug” and the unprecedented growth in our economy during the 1990s.
Section III-B, Problems (15 points): For each of the following problems, the diagram to the right shows an initial national macroeconomic equilibrium between real GDP (GDP) and an aggregate price level (CPI = Consumer Price Index), with the functions labeled AD (Aggregate Demand) and AS (Aggregate Supply). For each of the diagrams show the event described as a shift in AD or AS, and state the impact of the event on GDP (Increase, Decrease, Unchanged/Uncertain) and on the price level (Increase, Decrease, Unchanged/Uncertain). Each case involves a modification of the original graph. Analyze each case independent of each of the other cases.

1. With President Bush's backing, Congress approves immediate construction and deployment of a national missile defense system.
   
   CPI: I / D / U
   
   GDP: I / D / U

2. Another round of OPEC (Organization of Petroleum Exporting Countries) oil price increases leads to the largest gasoline price increases in decades.
   
   CPI: I / D / U
   
   GDP: I / D / U

3. Space-station computer chip manufacturing technology enhancements result in substantial productivity increases in the U.S. manufacturing sector.
   
   CPI: I / D / U
   
   GDP: I / D / U

4. Congress passes and President Bush signs a huge income tax decrease designed to bring the economy out of its longest recession since the Great Depression.
   
   CPI: I / D / U
   
   GDP: I / D / U

5. The largest earthquake ever recorded in California leaves 120,000 dead and millions homeless.
   
   CPI: I / D / U
   
   GDP: I / D / U