## Part One:

$>$ Explain the following questions in a clear, very concise, yet comprehensive manner.
$>$ Each question is worth 5 points for a total of 25 possible points for this part, and 103 possible points for the exam.
> Graphs are mandatory whenever appropriate.
Table 1: Assume an economy produces the following three items.

|  |  <br> Services |  <br> Services | 2001 Prices | 2005 Prices |
| :--- | :--- | :--- | :--- | :--- |
| Tires | 1000 | 1100 | $\$ 1.00$ |  |
| China Sets | 50 | 60 | $\$ 2.00$ |  |
| Watches | 100 | 110 | $\$ 80.00$ | $\$ 1000.00$ |

1) Assuming Table 1 represents the total output of final goods and services of a small economy, use 2001 as the base year to calculate the GDP deflator for 2005. Use this to calculate the inflation rate between 2001 and 2005.
2) Now calculate the inflation rate when 2005 is the base year.
3) Create a consumer price index by now assuming that the goods \& services column for 2001 represents a typical "consumer bundle." Calculate the CPI for 2001 with 2005 as the base year. Use this to determine the inflation rate between 2001 and 2005 if 2001 is the base year.
4) Explain why the CPI tends to overstate the consequences of price increases on living standards.
5) Describe the difference between frictional and structural unemployment. As a policy maker, which one would concern you most? Why?

## Part Two:

> Please choose the most appropriate answer and carefully record your response on your scantron card.

- Each question is worth 3 points for a total of 78 possible points for this part, and 103 total possible points.

1) Suppose that the nominal GDP in 2001 was $\$ 4500$ billion and in 2002 it was $\$ 4750$ billion. Moreover, the total population increased between those two years from 235 million to 239 million. Using 2001 as the base year and the fact that the GDP price index for 2002 was 1.15 , what was the growth rate of Real GDP?
A. $-8.2 \%$
B. $41.3 \%$
C. $9 \%$
D. $-3.7 \%$
E. none of the above.
2) Which of the following is correct? Economists view investment as
A) borrowing for the purchase of stocks and bonds.
B) borrowing for the purchase of raw land for later resale.
C) saving to cover the difference between people's income and their spending.
D) borrowing for the purchase of equipment, plants, and inventories.
E) saving for the purchase of certificates of deposit.
3) Which of the following correctly completes this statement? Private saving is
A) what remains of personal disposable income after personal consumption expenditures.
B) the value of stocks and bonds.
C) personal income minus taxes.
D) none of the above
4) Assume that, $C=1000+.9 Y_{\text {dis }}$ billion $\$, G=150$ billion $\$, T=100$ billion $\$$ and $I=250$ billion $\$$ (EX=IM=0) at the North Pole. Equilibrium Income (GDP) is:
A. 14,000 .
B. 13,100 .
C. 9,100.
D. 10,000 .
E) none of the above
5) Assume that, $C=1000+.9 Y_{\text {dis }}$ billion $\$, G=150$ billion $\$, T=100$ billion $\$$ and $I=250$ billion $\$$ (EX=IM=0) at the North Pole. Equilibrium Savings is:
A. 400 .
B. 310 .
C. 250 .
D. 300 .
E) none of the above
6) A donut baker is trying to determine how many new donut making machines to purchase. The price of each machine is $\$ 5000$. The baker expects to generate an additional profit of $\$ 1000$ for the first additional machine, $\$ 500$ for a second additional machine, and $\$ 100$ for a third additional machine. How much will the baker invest in new machines if the current real interest rate is $8 \%$ ?
A. $\$ 5,000$
B. $\$ 10,000$
C. $\$ 15,000$
D. $\$ 1500$
$E$ ) none of the above
7) The CPI increased from 152 in 1995 to 180 in 2002. Over this same period, a worker's wage increased from $\$ 20$ per hour to $\$ 23.00$ per hour. What happened to the worker's real wage during this period?
A. it declined.
B. it rose.
C. it did not change.
8) In the first quarter of 2003 real GDP increased by $1.6 \%$. This means that
A. output has increased by $1.6 \%$.
B. the price level has increased by $1.6 \%$
C. the $1.6 \%$ increase must be split evenly between an increase in the price level and an increase in output.
D. the increase might have been caused by an increase in output, but we can't tell for sure.
E) none of the above
9) Which of the following is not a final good or service?
A) The flour purchased by the homemaker.
B) The flour purchased by the baker.
C) The flour purchased by the grocery store which is still on the shelves.
D) All except $A$.
E) All except $A$ and $C$.

## Table 2:

| (in billions of dollars) |  |
| :--- | ---: |
| Government Expenditures | $\$ 250$ |
| Wages and Salaries | 1675 |
| Gross Investment | 325 |
| Rent | 20 |
| Consumption | 1425 |
| Interest | 40 |
| Net Exports | 100 |
| Indirect Business Taxes and Depreciation | 300 |

10) Table 2 shows some (but not all) national income accounting data for Hypothetica.

According to this data, the value of GDP is $\qquad$ billion.
A) $\$ 2100$
B) $\$ 1850$
C) $\$ 2000$
D) $\$ 2050$
E) none of the above
11) Table 2 shows the national income accounting data for Hypothetica.

According to this data, national income is $\qquad$ billion.
A) $\$ 225$
B) $\$ 1800$
C) $\$ 2000$
D) $\$ 1750$
$E)$ none of the above
12) The marginal propensity to save (MPS) is
A) the increase in saving per dollar increase in income.
B) saving divided by consumption.
C) the decrease in saving that is caused by inflation.
D) the increase in saving per dollar increase in consumption.
$E)$ none of the above

Table 3:

| Output (billions) | $\$ 0$ | $\$ 100$ | $\$ 200$ | $\$ 300$ |
| :--- | ---: | ---: | ---: | ---: |
| Consumption (billions) | 10 | 90 | 170 | 250 |

13) Table 3 shows a hypothetical economy's consumption/ income curve. In this economy, the marginal propensity to consume is
A) impossible to determine from the information given
B) 0.9
C) 0.8
D) 0.3
E) none of the above
14) In the classical model of macroeconomics, interest rates adjust to equate
A) desired consumption and savings.
B) desired savings with desired investment.
C) desired consumption with desired investment.
D) the marginal propensity to consume and the marginal propensity to save.
E) none of the above

## Table 4

| Political Scientist | Washington | Lincoln | Truman |
| :--- | :--- | :--- | :--- |
| Jones | 2 | 1 | 3 |
| Smith | 1 | 3 | 2 |
| Zapata | 3 | 2 | 1 |

15) Table 4 shows the rankings of three U.S. presidents by three distinguished political scientists: Jones, Smith, and Zapata. In a vote on Truman and Lincoln, Lincoln wins; in a vote on Washington and Lincoln, Washington wins. In a vote on Truman and Washington,
A) Truman will win.
B) Washington will win.
C) there will be a tie.
D) no outcome is possible.
E) none of the above
16) The most general description of business cycles is
A) the pattern of short-run upward and downward movement in total output.
B) the increase in consumer spending that accompanies an increase in disposable income.
C) the cyclical change in the nation's balance of trade.
D) the cyclical movement in interest rates.
E) none of the above
17) When a new college graduate enters the labor force for the first time and is looking for a job, he or she is, according to employment statisticians,
A) a discouraged worker.
B) in the labor force but unemployed.
C) employed.
D) not in the labor force.
E) none of the above.
18) Assume that a person consumes 1 pint of ale and 1 loaf of bread per day (and nothing else). In the base year, bread is $\$ 0.50$ per loaf, and ale is $\$ 1.50$ per pint. In the current year, the price of bread rises to $\$ 0.80$ per loaf and the price of ale rises to $\$ 2.00$ per pint. The person's price index for this current year in relation to the base year is
A) 1.40 .
B) 3.00 .
C) 0.667 .
D) 2.20 .
E) none of the above
19) Which of the following is correct? Unanticipated inflation
A) makes creditors better off and debtors worse off.
B) does not redistribute income between debtors and creditors.
C) can cause union members to sign wage contracts that do not protect them from inflation.
D) never occurs.
E) is harmful to businesses that have borrowed heavily.
20) The consumer price index (CPI) stood at about 205 in January 1979 and rose to about 256 in November 1980.

Between those two dates, construction workers' wages rose from $\$ 9$ per hour to $\$ 10.20$ per hour. Thus, during this period,
A) the price level rose almost 25 percent.
B) real consumer prices rose.
C) the real wage of construction workers fell.
D) All of the above.
$E)$ none of the above
21) In the base period, a market basket of goods costs $\$ 200$. In the current period, the same market basket costs $\$ 400$. The price index for the current year is
A) 100 .
B) 200 .
C) 400 .
D) 20 .
E) none of the above

Use Table 1 to answer the following TWO questions. Figures are in billions of dollars.
Table 1:

| Personal Consumption | 4900 |
| ---: | :--- |
| Personal Savings | 1100 |
| Personal Taxes | 200 |
| Indirect Business Taxes | 175 |
| Government Spending | 2000 |
| Exports | 300 |
| Imports | 400 |
| Gross Private Investment | 1200 |
| Depreciation | 150 |

22) What is the value of GDP for this economy described above?
A. 6100
B. 8100
C. 8000
D. 6800
E. None of the above.
23) What is the value of Personal Income for this economy described above?
A. 6100
B. 8100
C. 6800
D. 6200
E. None of the above.
24) Which of the following is correct? Gross domestic product (GDP) is
A) the value of all final goods and services produced in a country during a year.
B) the sum of consumption, investment, government spending, and exports minus imports.
C) wages and salaries, proprietor's income, interest, rents, profits, depreciation, and indirect business taxes.
D) All of the above.
25) Table 4 shows the rankings of three U.S. presidents by three distinguished political scientists: Jones, Smith, and Zapata. The voting patterns of Jones, Smith, and Zapata are characterized by the paradox of voting because
A) there is a clear winner.
B) transitivity fails.
C) Truman wins.
D) Washington wins.
E) none of the above
26) Rational ignorance is
A) a characteristic of a bad citizen in a democratic society.
B) acquiring insufficient information to vote rationally on public-choice issues.
C) failing to gather information because the costs of information gathering exceed the benefits.
D) vote trading by ignorant politicians.
E) none of the above
