I. Concepts (6 of 100 points)

1) What is the definition of Gross Domestic Product?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

2) In the space below, write the formula for the Consumer Price Index:


3) What is imputed rent and how is it included in GDP?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
II. Real and Nominal Variables (13 of 100 points)

Suppose the following table fully summarizes the economy from 2014-2016:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015 (base year)</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prices</td>
<td>Quantities</td>
<td>Prices</td>
</tr>
<tr>
<td>Corn</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Rice</td>
<td>20</td>
<td>15</td>
<td>20</td>
</tr>
</tbody>
</table>

The CPI basket is composed of 1 unit of corn and 1 unit of rice. Fill in all entries below:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal GDP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP Deflator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compute the CPI inflation rate:

In 2015: ____________

In 2016: ____________

A worker earns the following amounts of money in each of these three years:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td>21,000</td>
<td>24,000</td>
<td>28,000</td>
</tr>
</tbody>
</table>

Using CPI, convert the worker’s salary into base year dollar values:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each question, circle one:

This worker’s nominal salary is: RISING    CONSTANT    FALLING

This worker’s real salary is: RISING    CONSTANT    FALLING

How much would the worker’s salary have to be in 2016 to have the same real salary that they had in 2014? ________________
III. Categorization of GDP (11 of 100 points)

For each expenditure, mark an X in the column or columns where the expenditure would be counted (positive or negative) in GDP. There may be more than one answer.

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>I</th>
<th>G</th>
<th>X</th>
<th>M</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture produced this year, which is currently in warehouse and will be sold to a foreign country next year</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A new highway is built by the government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apples purchased from a foreign country and consumed by households.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial services purchased from a foreign bank by a domestic firm to facilitate its operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial services purchased from a foreign bank by a domestic household to facilitate a stock transaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The purchase of a new house this year, and the rent money collected from its occupants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College tuition payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flour purchased by a baker, which is then turned into bread</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computers stored in a warehouse last year are sold to households this year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One individual buys shares of a company directly from another individual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government payments of unemployment benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. Multiple Choice (70 of 100 points)

For each question, please circle exactly one correct answer.

1) Which of these was not one of the events that caused a recession in Argentina in the period between 1900 and 1940?
   a. Opening of the Panama Canal
   b. World War I in Europe
   c. The Great Depression in the USA, UK and other places
   d. Hyperinflation due to heavy government expenditure

2) Why did the Argentine reforms of the 1990s ultimately fail?
   a. The government began printing money to finance its activities
   b. The government was unable to maintain its exchange rate peg with the US
   c. Many industries were nationalized
   d. The government implementing the reforms was corrupt

3) Why was there little or no economic growth before the Industrial Revolution?
   a. There was essentially no international trade
   b. Population growth offset any increases in aggregate income
   c. Economic growth is impossible within a feudal system
   d. Capital depreciation was so high that machines could not be maintained

4) Which of these best describes South Korea’s economic policies after 1960?
   a. The government dismantled many inefficient government programs and regulations, while allowing private enterprises to operate independently
   b. The government implemented programs to reduce imports, which allowed domestic industries to grow without competition from foreign countries
   c. The government used special economic zones to implement policy reforms in isolated areas, then expanded those policies when it seemed that they worked
   d. The government coordinated industries to produce for export markets, and focused on maintaining stable inflation and interest rates

5) Which of these is part of the definition of import substitution policy?
   a. Support domestic industries that are heavily imported
   b. Support domestic industries that are heavily exported
   c. Keep net exports equal to zero
   d. Keep the government budget balanced
6) Which of the following best describes the differences in the growth experiences of China and South Korea?
   a. China’s growth experience began under a one party system, while South Korea’s started in a democracy
   b. South Korea received large amounts of foreign aid, while China did not
   c. South Korea allowed free market forces to determine what industries grew, while the Chinese government channeled resources to particular industries
   d. South Korea experienced increases in international trade, while China grew through domestic investment in infrastructure

7) As a result of the Asian Financial Crisis, South Korea:
   a. Ended their long period of fast growth, and have not grown since
   b. Had a brief period of negative or slow growth but have since resumed growth
   c. Was able to get an IMF loan, so never experienced a growth slow down
   d. Was only modestly affected through trade with other Asian economies

8) Which of these is categorized in GDP as investment?
   a. Rent paid to the owner of a home
   b. Fees paid for purchases of corporate stock
   c. Production machines sold to a foreign country
   d. Toys made this year that are unsold in a warehouse at the end of the year

9) How did Solow determine that productivity, and not capital, is the driver of cross-country differences in GDP per capita?
   a. From the example of South Korea
   b. Noting that savings rates have no relationship with GDP across countries
   c. Noting that richer countries do not have more capital than poorer countries
   d. Noting that productivity had no relationship with GDP across countries

10) Suppose there are 2000 adults in the economy. They are divided up as follows: 200 are full time students, 200 work one part time job, 150 work two part time jobs, 400 work one full time job, 200 work one full time and one part time job, 400 are retired, 150 choose not to work, 50 have no job and last looked for a job 1 week ago, and 250 have no job and last looked for a job 2 weeks ago. Rounding to one decimal place:
   a. The unemployment rate is 5% and the labor force participation rate is 50%
   b. The unemployment rate is 20.7% and the labor force participation rate is 72.5%
   c. The unemployment rate is 4.2% and the labor force participation rate is 60%
   d. The unemployment rate is 24% and the labor force participation rate is 62.5%
11) Which of these has a negative total effect on GDP?
   a. Potatoes are imported from abroad and consumed by households domestically
   b. A firm purchases phone technical support services from a foreign country
   c. Inventories of goods are purchased from abroad and stored in a warehouse
   d. The government runs a budget deficit

12) The fact that Japan is wealthier than Iraq is consistent with which of these hypotheses?
   a. Institutions hypothesis
   b. Geography hypothesis
   c. Fundamental prosperity hypothesis
   d. None of these

13) What was a key difference between Argentina and South Korea’s economic policy?
   a. Argentina subsidized industry while South Korea did not.
   b. Argentina promoted agriculture while South Korea promoted manufacturing.
   c. Argentina subsidized its least efficient industries while South Korea subsidized its most efficient industries.
   d. Argentina has low education while South Korea has a high education level.

14) Political creative destruction refers to:
   a. The political establishment holding back economic growth to maintain their own power
   b. Government subsidies for and sponsorship of new technologies
   c. Economic growth causing the destabilization of political regimes
   d. Government taxes on and resistance to new technologies

15) According to Esther Duflo, if we want to know how to save the greatest number of lives possible with $1,000,000 in the developing world, we can find the answer by:
   a. Using macroeconomic modeling
   b. Using randomized controlled trials
   c. Asking local government officials
   d. Understanding free market forces

16) Which of these contrast IMF and World Bank loans?
   a. World Bank loans require structural adjustment programs, but IMF loans do not
   b. IMF loans require structural adjustment programs, but World Bank loans do not
   c. World Bank loans have short durations, while IMF loans have long durations
   d. IMF loans have short durations, while World Bank loans have long durations
17) Which of these is true about GDP and GNP?
   a. GDP exceeds GNP if imports exceed exports
   b. GDP exceeds GNP if exports exceed imports
   c. If a country has zero trade with other countries, then its GDP is equal to its GNP
   d. None of these
18) Which of these is false? Fast growing countries:
   a. Tend to have their growth end suddenly
   b. Grow when governments play little role in the economy
   c. Tend to stop growing before they reach US levels of GDP per capita
   d. Experience strong growth in trade
19) Which of these categories is the largest for the United States?
   a. Consumption
   b. Investment
   c. Government purchases
   d. Exports
20) Which of these characterizes catch-up growth?
   a. Growth gets faster and faster over time
   b. Growth gets slower and slower over time
   c. Investment tends to be low during catch-up growth
   d. None of these
21) Which of these causes unemployment to increase?
   a. An unemployed worker retires and no longer is looking for work
   b. An employed worker retires and is not looking for work
   c. An employee with two jobs is fired from one of them
   d. A worker who already had a job takes a second job
28) Which best summarizes Argentina’s economic history for the past 100 years?
   a. Argentina was poor 100 years ago, then grew quickly, but then destabilized and became poor again.
   b. Argentina was rich 100 years ago, then pursued policies aimed at reducing their dependence on imports, which resulted in many economic crises.
   c. Argentina was poor 100 years ago, then because of trouble in international markets it has never been able to grow.
   d. Argentina was rich 100 years ago, then pursued policies aimed at increasing international trade, which resulted in many economic crises.
22) Which of these is an example of an increase in the US capital stock?
   a. Americans are healthier at older ages, so they retire older
   b. Households begin buying more stock in US corporations
   c. US businesses hold greater inventories of goods
   d. A developer builds a commercial office building in downtown Chicago

23) Which of these is not counted in GDP?
   a. Accounting services purchased by households
   b. Accounting services purchased by domestic firms
   c. Accounting services purchased by the government
   d. Accounting services purchased by foreign firms

24) According to the Solow growth model, if there is an increase in productivity:
   a. Consumption decreases in the short run and increases in the long run
   b. Consumption increases in the short run and the long run
   c. Consumption increases in the short run and decreases in the long run
   d. Consumption decreases in the short run and may or may not increase in the long run.

25) According to the Solow growth model, if there is an increase in the savings rate:
   a. Consumption decreases in the short run and increases in the long run
   b. Consumption increases in the short run and the long run
   c. Consumption increases in the short run and decreases in the long run
   d. Consumption decreases in the short run and may or may not increase in the long run.

26) Which of the following is true about the experiences of fast-growing countries?
   a. Their fast growth tends to end suddenly.
   b. Fast growth episodes have only occurred in East Asia.
   c. No country has sustained fast growth for as long as China.
   d. Fast growth occurs when countries increase their rate of savings.

27) Which of these best describes the Korean economy during the period of Japanese occupation?
   a. The Japanese introduced industrialization and GDP grew.
   c. The Japanese discouraged manufacturing and encouraged food production to help feed the Japanese homeland.
   d. Introduction of raw materials from Japan caused GDP to grow.
29) US real GDP per working age person has grown at what rate over the past 100 years, and approximately how often does it double?
   a. Grows at 4%, doubles every 18 years
   b. Grows at 2%, doubles every 18 years
   c. Grows at 4%, doubles every 35 years
   d. Grows at 2%, doubles every 35 years
30) Which of the following is not a function of the WTO?
   a. Provide loans to countries to encourage trade
   b. Standardize the tariffs that countries charge to other countries
   c. Settle trade disputes between countries
   d. Promote world trade
31) Why is China’s growth so important for the world economy?
   a. No country has ever grown as fast as China
   b. China’s very large population
   c. No country has ever sustained growth for such a long period of time
   d. All of the above
32) Which of the following is not associated with the Great Leap Forward?
   a. Starvation due to a drop in agricultural productivity
   b. Production of worthless pig iron
   c. Collectivization of agriculture
   d. Foreign invasion in coastal areas
33) China’s exchange rate strategy encourages Chinese exports by:
   a. Strengthening the Chinese yuan by allowing US dollars into the Chinese economy
   b. Weakening the Chinese yuan by allowing US dollars into the Chinese economy
   c. Weakening the Chinese yuan by keeping US dollars out of the Chinese economy
   d. Strengthening the Chinese yuan by keeping US dollars out of the Chinese economy
34) Which of the following would not likely increase GDP?
   a. Encouraging child labor
   b. Run perpetual trade deficits
   c. Direct spending away from consumption, toward investment
   d. Require adults to work 60 hours per week
35) Suppose a US accounting agency pays its domestic employees $2,000,000 and pays $500,000 in consulting fees to a London firm. The agency provides $1,000,000 worth of services to UK firms, $1,000,000 of services to the US government, $5,000,000 worth of services to US firms, and $1,000,000 of services to US households.

a. These activities contribute $2,500,000 to US GDP.
b. These activities contribute $4,500,000 to US GDP.
c. These activities contribute $7,500,000 to US GDP.
d. None of the above.