

# Practice Exam 1

## Concepts and Definitions

1. Choose the correct statement:
  - A. Real GDP excludes the quantity effect from the data series
  - B. To compare economic growth between countries, it is necessary to exclude the price effect from data
  - C. Nominal GDP and real GDP data series never cross
  - D. If nominal GDP increases by a lot, that means that the country becomes more economically developed
2. The purpose of the value added approach is:
  - A. To illustrate how valuable every step of a production process is
  - B. To eliminate double counting
  - C. To add the value of all the materials used in the production process to the value of the final good
3. To compare economic performance of countries, it is best to use GDP data in:
  - A. Real per capita terms
  - B. Nominal per capita terms
  - C. Real aggregate terms
4. Net exports increase when:
  - A. Exports increase and imports increase
  - B. Exports increase and imports decrease
  - C. Investment increases
  - D. Consumption expenditure increases
5. GDP basket does not include:
  - A. A hockey stick that you order directly from Canada
  - B. Party planning services from a company based in Hawaii
  - C. Haircuts at the salon on Notre Dame campus
  - D. Train carts produced in Michigan
6. What does the slope of the aggregate production function imply?
  - A. Decreasing returns to scale
  - B. Diminishing marginal product of capital
  - C. Increasing returns to scale
7. Which of the following is a characteristic of an institution?
  - A. Institutions have very little influence on a nation's economic prosperity
  - B. The institutions of a nation are permanent and cannot be changed over time
  - C. Institutions are determined by individual opinions without considering the government's preference
  - D. Institutions place constraints on the behavior of economic agents
8. Choose the correct statement:
  - A. It has been shown that poor countries are poor because of their unfortunate geographic locations
  - B. It has been proved that poor countries are poor because of their cultural traditions and beliefs
  - C. There exists evidence that poor countries are poor because they have extractive economic institutions
  - D. Extractive economic institutions promote economic development

9. Which of the following statements is true of Malthus's theory?
- A. Malthus suggested that fertility level of the population will remain constant over time
  - B. Malthus suggested that in the long run, income levels will grow exponentially
  - C. Malthus suggested that in the long run, income levels will stay at subsistence
10. Given the list of assets below, which is the most liquid?
- A. \$500 worth of General Motors bonds
  - B. a one-ounce gold coin
  - C. a \$500 traveler's check
  - D. \$500 worth of General Motors common stock
11. Which of the following is part of M2?
- A. credit cards
  - B. currency held inside a bank
  - C. checks
  - D. None of these are part of M1 or M2.
12. Cigarettes served as money in some POW camps during World War II. Given this fact, we would expect to observe
- A. prices of other goods expressed in terms of cigarettes.
  - B. people usually resorting to barter rather than using cigarettes as money.
  - C. no one ever smoking a cigarette.
  - D. only government-issued cigarettes being accepted as money.
13. Value added is the value of output net of value of inputs.
- A. True B. False
14. Low, steady, and anticipated inflation is not a problem.
- A. True B. False
15. The Consumer Price Index (CPI) is the most commonly used price index.
- A. True B. False
16. If the nominal GDP per capita in a country is steadily increasing overtime, it means that the economy is improving.
- A. True B. False
17. Inclusive economic institutions protect property rights.
- A. True B. False
18. The best way to help poor countries become richer is to provide financial aid in the form of cash transfers to them.
- A. True B. False

# Computational Problems

ALL THE QUESTIONS WILL BE IN MULTIPLE CHOICE FORMAT. YOU WILL NOT NEED PROVIDE ANY WRITTEN EXPLANATIONS TO YOUR ANSWERS. THE PROBLEMS BELOW ARE PRESENTED IN A DIFFERENT FORMAT SO IT IS MORE CONVENIENT FOR YOU TO PRACTICE.

## Problem 1

Consider a student with the following monthly nominal expenditure and monthly nominal income:

Year	Soda		Pizza		Nominal Income
	$q$	$p$	$q$	$p$	
2013	30	\$1.00	30	\$4.00	\$200
2014	30	\$1.10	30	\$4.50	\$200
2015	30	\$1.15	30	\$5.00	\$200

a) Pick a base year and identify what is in the CPI basket

<b>Base year:</b>	<b>CPI basket:</b>
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b) Find the price level in each year:

<b>2013:</b>	<b>2014:</b>	<b>2015:</b>
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c) Find the inflation rate in 2014 and 2015:

**2014:**

**2015:**

d) Find the real income in each year:

**2013:**

**2014:**

**2015:**

e) What is the student's real income growth rate in 2014 and 2015:

**2014:**

**2015:**

f) At the end of 2015 the student got a job with a starting salary of \$2,000 per month (nominal). His employment contract says that each year he will get a 5% increase from the previous year salary. What will his salary be in 2025?

**2025:**

g) The student knows that the price level in 2015 is 110. He is pessimistic about inflation and thinks that by 2025 the price level will be 180. Based on this prediction, is his employment contract good? Show how you came up with the conclusion.

**Answer:**

**Problem 2**

Consider a country where real GDP per capita is currently \$1,500. What will GDP per capita be in 100 years if the economy experiences a constant growth of 1% and if the economy experiences a constant growth of 4%?

**Problem 3**

Consider a student with the following monthly nominal expenditure and monthly nominal income:

Year	Tuition		Burgers		Nominal Income
	<i>q</i>	<i>p</i>	<i>q</i>	<i>p</i>	
2013	1	\$500	30	\$4.00	\$700
2014	1	\$520	30	\$4.50	\$700
2015	1	\$540	30	\$5.00	\$700

a) Pick a base year and identify what is in the CPI basket

<b>Base year:</b>
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<b>CPI basket:</b>
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b) Find the price level in each year:

<b>2013:</b>
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<b>2014:</b>
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<b>2015:</b>
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c) Find the real income in each year:

<b>2013:</b>
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<b>2014:</b>
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<b>2015:</b>
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d) In which year the student had the least ability to afford things?

**Problem 4**

(20 points/minutes) Consider a country with the following data:

Year	Nominal GDP per capita	CPI
2012	\$910	95
2013	\$900	90
2014	\$920	102
2015	\$940	110

a) Find the growth rate of the *real* GDP per capita in 2013, 2014, and 2015:

<b>2013:</b>	<b>2014:</b>	<b>2015:</b>
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b) Find the inflation rate in in 2013, 2014, and 2015:

<b>2013:</b>	<b>2014:</b>	<b>2015:</b>
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c) What will real GDP per capita be in 2050 if starting 2015 the economy experiences a constant growth of 0%, 1% and 3%?

**0%:**

**1%:**

**3%:**

d) What would lead this country to experience sustained (constant) growth from 2015 to 2050 (think about aggregate production function)?