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ECON 201—Montgomery College
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EXAM 2

Practice Exam B

- There are 110 possible points on this exam. The test is out of 100.
- You have one class session to complete this exam, but you should be able to complete it in less than that.
- Please turn off all cell phones and other electronic equipment.
- You are allowed a calculator for the exam. This calculator cannot be capable of storing equations. This calculator cannot double as a cell phone.
- Be sure to read all instructions and questions carefully.
- Remember to show all your work.
- Try all questions! You get zero points for questions that are not attempted.
- *Please print clearly and neatly.*

Part I: Matching. Write the letter from the column on the right which best matches each word or phrase in the column on the left. You will not use all the options on the right and you cannot use the same option more than once.

2 points each.

- | | |
|--|--|
| 1. I Allocatively efficient | A. Excludes washing your own dishes |
| 2. H Comparative advantage | B. GDP doesn't include this, but it should |
| 3. G Cyclical unemployment | C. GDP doesn't include this, and it shouldn't |
| 4. F Discouraged workers | D. GDP includes this, and it should |
| 5. A Gross Domestic Product | E. GDP includes this, but it shouldn't |
| 6. D New consumer durables | F. Not in the labor force |
| 7. C Transfer payments ¹ | G. Not a part of the natural rate of unemployment but in the labor force |
| | H. Predicts that the best person to produce is the person who sacrifices the least for a unit of production. |
| | I. Socially optimal bundle |

1. *A point that's allocatively efficient is the best bundle available; it represents not only efficiency in the productive sense (no idle means of production) but also it's making the best possible combination of goods and services.*
2. *Comparative advantage, unlike absolute advantage, looks at not only how much can be produced but also the opportunity cost: what is sacrificed by production.*
3. *Cyclical unemployment is unemployment due to recessions. Such individuals are in the labor force (because they are looking for work) but should have a job if the economy was functioning well.*
4. *Such workers don't have a job and aren't looking for work. Like stay-at-home parents, the retired, and some students, they are therefore not in the labor force.*
5. *Washing your own dishes is nonmarket production; it create value but since it isn't a market transaction it's not included in the labor force.*
6. *Consumer durables which are brand new (not used) are a form of consumption. Since they were recently produced, they should be included in GDP. Such goods are included under C, or consumption.*
7. *When the government sends people money it hasn't purchased anything. Transfer payments are not included in GDP as they*

¹ As in, when the government gives someone money. Examples include unemployment insurance, welfare, and Social Security.

shouldn't; nothing was produced. This money will be counted, however, when the recipient uses it to buy things.

Part II: Multiple Choice. *Choose the best answer to the following.*
4 points each.

8. Which of the following goods is/are **never directly** counted as a part of GDP?
- Computer games
 - Used bicycles**
 - Airplane engines
 - A & C
 - B & C

*Used bicycles aren't produced (only new ones are) so they aren't included. Airplane engines sometimes aren't directly counted (because they are intermediary) **BUT they are explicitly counted when the engine is imported/exported.***

9. The theory of convergence relies on what idea?
- Diminishing marginal productivity of capital**
 - Diminishing marginal productivity of education
 - Diminishing marginal utility of education
 - B & C
 - None of the above

Poor countries tend to have very little capital while wealthy ones have a lot of capital. Because of diminishing marginal productivity of capital, a unit of capital in a poor country won't add much to the country's wealth. But that same unit of capital in a poor country would add a great deal to that country's wealth. Thus the wealth of each country will converge over time.

10. In *The Economic Organization of a P.O.W. Camp*, what kind of money were the currencies discussed in the reading?
- Cigarettes: commodity currency; German marks: fiat currency.
 - Cigarettes: commodity currency; bully marks: fiat currency.
 - Cigarettes: commodity currency; bully marks: representative currency.
 - Cigarettes: representative currency; bully marks: fiat currency.
 - Cigarettes: representative currency; bully marks: representative currency.

The value of the cigarette was the cigarette itself; it was a commodity currency. But the bully mark represented food; it was a representative currency. The reading did not discuss German marks.

11. Suppose San Diego had the comparative advantage in medical devices. What does that mean?

- a. San Diego can make the most medical devices.
- b. San Diego can make the highest quality medical devices.
- c. San Diego is better at making medical devices compared to its ability to provide tourism.
- d. San Diego can make the cheap, lowest quality medical devices.
- e. **None of the above**

San Diego can make medical devices cheaper than anyone else; one medical device produced means it sacrificed the least amount of something else. In this case, quality is no different than quality (both require resources) so we hold quality constant.

Note that San Diego can have the comparative advantage in medical devices even if it can produce more tourism than medical devices. That's possible because another city may be able to make the same amount of tourism but supply far fewer medical devices. For example:

		<i>City</i>	
		<i>Honolulu</i>	<i>San Diego</i>
<i>Product</i>	<i>Tourists</i>	800	500
	<i>Medical Devices</i>	100	100

San Diego can entertain more tourists than it can build medical devices. But for every medical device built, it gives up 5 tourists while for every medical device built, Honolulu gives up 8 tourists. San Diego has the comparative advantage in medical devices even though it can entertain more tourists than build medical devices.

12. We discussed many gaps, or problems, with how GDP is calculated. Which of the following is **not** such a gap?
- a. **It doesn't include any steel sold to a local car company.**
 - b. It doesn't include cooking your own dinner.
 - c. It doesn't include cooking meth and the creation of other illegal substances.
 - d. B & C
 - e. None of the above

While it's true that it doesn't include steel sold to a car company, this is not a problem as such steel would be an intermediary good.

13. Which of the following would illustrate the fundamental problem of a CPI which only examines the price of various clothes?
- a. If the price of televisions increased, there would be no inflation.

- b. **An increase in the price of fabric would register as inflation.**
- c. Both A & B are equally problematic.
- d. There is nothing wrong with such a CPI.
- e. There is something wrong, but none of them are listed here.

The CPI is used to calculate inflation. It does this by examining the prices of a variety of goods. It's important that there's a variety so price increases unique to an industry aren't mistaken for an increase in the price level.

So why isn't A also correct? While it may be problematic, it's not a fundamental issue. Just because an increase in the price of television doesn't result in inflation doesn't mean there's a problem. The whole point of a variety of goods is that no one good has undue sway.

14. Which of the following is a zero-sum game?
- a. Soccer
 - b. War
 - c. Economic growth
 - d. **A & B**
 - e. All of the above

As discussed in class, economic growth is a positive-sum game: all countries can grow. But in soccer and war, there must be a loser for there to be a winner; not everyone can win.

You could argue this is wrong, that soccer is a positive-sum game, too. While there must be a loser to have a winner, both sides enjoyed playing (that's why each decided to play in the first place) so the group as a whole comes out ahead.

You could also argue that war is actually a negative-sum game: the gains to the victor are less than the losses to the loser because so many lives were lost and resources destroyed (not to mention the opportunity cost!).

15. Which of the following is **not** a function of money?
- a. Always used in every exchange
 - b. **Prices of the same good should be the same everywhere**
 - c. Doesn't lose value over time
 - d. B & C
 - e. None of the above

Both A and C are functions (medium of exchange and store of value, respectively) but B is not.

16. According to the quantity theory of money, which of the following is true?
- a. Increasing the money supply (M) *always* leads to inflation.
 - b. The *only* way to get inflation is to increase the money supply (M).
 - c. Increasing real GDP *increases* the price level, all other things being equal.
 - d. Increasing real GDP *decreases* the price level, all other things being equal.**
 - e. None of the above

Remember the equation: $Mv = pY$. A isn't true because you can increase Y or decrease v to balance the equation. B isn't true because you can increase v or decrease Y to get inflation. C is the opposite of what actually happens when you increase Y : holding M and v the same, if Y increases, p must fall.

17. What does a point to the right of an economy's production possibilities frontier indicate?
- a. The economy can produce more of the good on the x-axis but no more of the good on the y-axis.
 - b. The economy can produce more of the good on the y-axis but no more of the good on the x-axis.
 - c. If the economy produced at that point, it would be allocatively efficient but not productively efficient.
 - d. If the economy produced at that point, it would be productively efficient but not allocatively efficient.
 - e. None of the above**

Such a point is not possible to produce at. It describes a level of X and a level of Y that the economy cannot produce at the same time.

18. As we discussed, the labor force participation rate for women is substantially higher than it was 60 years ago. Which of the following is *not* a possible reason for this change?
- a. The decline of sexism in the workplace
 - b. The economy's greater emphasis on professional services
 - c. The invention of birth control
 - d. A & C
 - e. None of the above**

All of these things contributed to the increase in the female labor force participation rate.

19. Which of the following statements is/are true?
- a. It is possible for the number of net new jobs created to be unusually high and, at the same time, for the unemployment rate to rise.

- b. Unexpected inflation hurts lenders because makes it more likely people will not be able to pay back their loans.
- c. All the ways people in a country spend money equals all the ways people in that country make money.
- d. **A & C**
- e. All of the above are true

A is true if there are many discouraged workers. A large number of newly created jobs encourage people to start looking. These new entrants to the labor force increase unemployment. C is also true; the total income in a country equals the total spending in a country. That's why there are two different ways to calculate GDP: the income and the spending approaches.

But B is false. While unexpected inflation hurts lenders, it's because the inflation makes the resulting money less valuable. In fact, people are more likely, not less likely, to pay back their loans (because wages would increase).

Part III: Short Answer. *Answer the following.*

16 points each.

20. We discussed several reasons why the labor force participation rate changes over time. Briefly describe two of these reasons.
- 1) *Changes in demographics change the LFPR. If the elderly take up a larger share of the population (due to aging baby boomers and/or improved lifespan), LFRP falls as the percent of adults in retirement increases. If many immigrants enter the country, the LFPR may rise since immigrants tend to not only be of working age but they also immigrate to work. They would be either be looking for a job or already have one.*
 - 2) *Taxes and benefits change the LFPR. Reducing Social Security benefits for working seniors encourage them to leave the labor force. Generous benefits for needy people may discourage them from looking for a job.*

You could also discuss the new kinds of jobs available, improved technology (notably the Pill), and decreased sexism in the workplace, each of which encourage women to enter the labor force.

21. Using the hypothetical data below, calculate the unemployment rate, the natural rate of unemployment, and the labor force participation rate. Remember to show all your work. Round your answers to the nearest two decimal places, if necessary.

	<i>Population (thousands)</i>
<i>Employed Full Time</i>	350
<i>Employed Part Time</i>	200
<i>Frictional Unemployed</i>	22
<i>Discouraged Workers</i>	15
<i>Structural Unemployed</i>	8
<i>Cyclical Unemployed</i>	20
<i>Adult Population²</i>	750
<i>Total Population</i>	900

First, we need all the people who are unemployed. Remember, discouraged workers are not unemployed! So we add up the structural, frictional, and cyclical unemployment:

$$22+8+20 = 50$$

Now we add that number to the employed to get the labor force. The total employed are the full time and part time employed people are: $350+200 = 550$.

$$50+550=600$$

The unemployment rate is thus: $50 / 600 = 8.3\%$

The natural rate is calculated the same way, but we don't include cyclical unemployment in the numerator. We still include it in the denominator because the cyclically unemployed are still in the labor force.

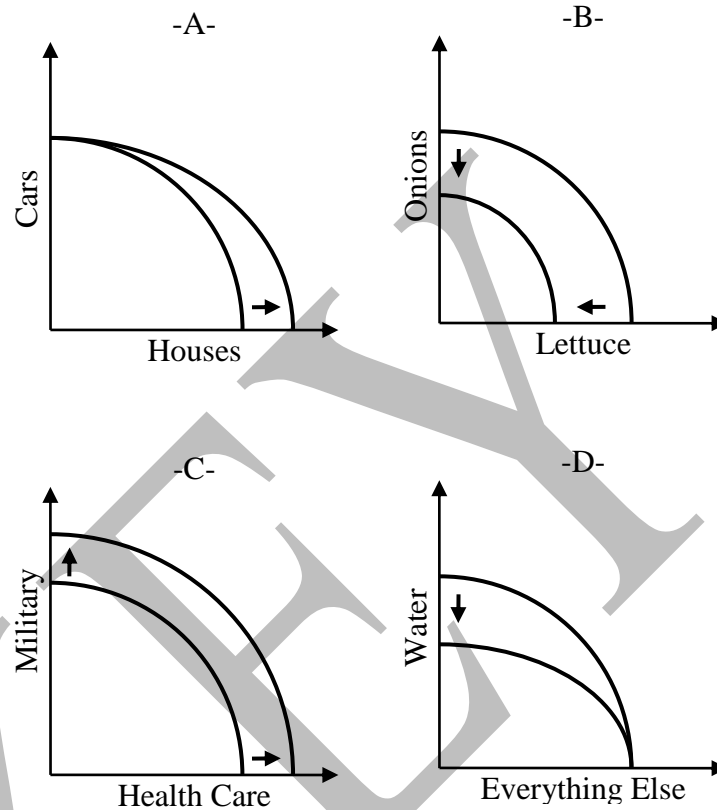
The natural rate is thus: $30 / 600 = 5.0\%$

The labor force participation rate is the labor force divided by the adult population (or, all the people who could be working): $600 / 750 = 80.0\%$

² Civilian and noninstitutionalized

22. Using the provided diagrams, illustrate the effects of the following (4 points each).

- New technology makes it easier to harvest trees for lumber.
- There's a terrible drought.
- More people enter the country.
- Poor pipes result in contaminated water.



- Because the economy can get more lumber, it can make more houses (which are mostly wood). But cars have no lumber in them; the maximum number of cars the economy can make doesn't change.
- A drought would reduce the maximum amount of lettuce and onions an economy could produce; the whole PPF shifts in.
- If there are more people in the country, maximum amounts of health care and military both increase.
- Contaminated water due to piping means the economy can't produce as much water as it used to. This shouldn't affect the maximum amount of other things, though. (To the extent that other things need water to be made would be captured in the fact that less water can be provided; the y-axis is untangled from the x-axis.)