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ECON 201—Montgomery College  
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## **EXAM 2**

### **Practice Exam A**

- 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. <b>A</b> Absolute advantage | A. Determined by who produces the most                                       |
| 2. <b>I</b> Final              | B. Example: paper towels   |
| 3. <b>C</b> Intermediary good  | C. Example: timber   |
| 4. <b>G</b> Market value       | D. Money must be portable/divisible  |
| 5. <b>H</b> Produced           | E. Money must be uniform   |
| 6. <b>F</b> Store of value     | F. Money cannot rot or decay   |
| 7. <b>E</b> Unit of account    | G. Part of GDP's definition which captures quality                           |
|                                | H. Part of GDP's definition which excludes used goods and services           |
|                                | I. Part of GDP's definition which prevents double counting a good or service |
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1. *Unlike comparative advantage—which considers how much is sacrificed—absolute advantage looks at only what could be produced. Who can produce the most?*
  2. *“Final” means it’s the good or service sold to consumers; this means you don’t explicitly count anything made in the country that’s going into something else made in the country. Otherwise, you’d count that thing twice (once when made and once when sold to the consumer).*
  3. *An intermediary good (or service) is a good (or service) used to produce something else and is consumed in the process; it transforms into something else. Timber is such a good, usually transforming into furniture or houses.*
  4. *“Market value” is used to distinguish high-quality items from low-quality items since high-quality items will typically have a higher market price.*
  5. *“Produced” means the items must have been made in the time period in question. Otherwise, it would be counted twice—once when it was sold initially and once when it is sold as a used item. Note that while you could have selected I for this question, you wouldn’t have I for #2 and H for #2 is not correct.*
  6. *If money falls apart, or otherwise inherently loses value, it cannot keep its value over time. It will not function as a store of value.*

7. *If different units of currency have different values, it will not be possible to determine how much something is worth. The value of “10 laptops” depends on the quality of the laptops in question.*

**Part II: Multiple Choice.** *Circle the best answer to the following.*

4 points each.

8. Suppose a country's GDP in 2013 is \$40 billion and in 2014 it grows to \$60 billion. What is the growth rate of that country's GDP?
- a. 20%
  - b. 33%
  - c. **50%**
  - d. 200%
  - e. None of the above

*\$60 billion – \$40 billion = \$20 billion. \$20 billion / \$40 billion (our starting value) is 0.5, or 50%.*

9. We discussed many reasons for why economic growth occurs. Which of the following was one of the reasons?
- a. Availability of education
  - b. **Rule of law**
  - c. Lots of capital and equipment
  - d. B & C
  - e. None of the above

*The main theme of origins of economic growth was economic freedom and the rule of law—equal treatment under the law—is one such consideration. While education and capital are also important for growth, they are less fundamental than economic freedom.*

10. In *The Economic Organization of a P.O.W. Camp*, describe the cigarette as it functioned as a currency.
- a. The price level was very stable, though sometimes it was high.
  - b. **The price level was very unstable as supply and demand of cigarettes greatly fluctuated.**
  - c. Because of Gresham's law, the cigarette currency wasn't reliable.
  - d. Because everyone got the same bundle goods, the cigarette currency was rarely used.
  - e. Because German officers kept taking cigarettes for themselves, the currency was very hard to use.

*The market for cigarettes was unreliable: it rose when new prisoners arrived and fell based on news of the war (as people smoked them). The*

*desire for price stability was the main motivation for creating the Bully Mark.*

11. True or false: it is possible to have allocative efficiency without productive efficiency.
- a. True, because sometimes people don't want as much as could be produced.
  - b. True, because that bundle may represent a maximum level of production but it doesn't mean people want that bundle.
  - c. **False, because it would be possible to get more of something without sacrificing anything.**
  - d. False, because you could always produce more if you sacrifice something else.
  - e. None of the above

*Imagine an economy was not productively efficient; perhaps it chooses option A from the previous question. Could that not be how many yams and xylophones a country wants? Keep in mind that the PPF is a model; it would be impossible to explicitly include all products because each product needs its own axis. So in the above example, there are only two products: yams and xylophones.*

*More is better and if you produce at A, you can get more yams without sacrificing any xylophones (and vice versa). Thus, A cannot be allocatively efficient; it can't be the best bundle because there is a strictly better bundle available.*

12. Which of the following is true?
- a.  $C+I+G+NX = \text{wages}+\text{interest}+\text{rent}$
  - b. The longer you are unemployed, the harder it is to find a job.
  - c. Men are more likely to be unemployed than women.
  - d. **B & C**
  - e. All of the above

*Option A is missing profits from the right-hand side of the equation. The others are true. Because men are more likely to be looking for work but have been hit by manufacturing loss, they are more likely to be unemployed. And being unemployed makes it harder to find a job because it puts your worth as an employee into question.*

13. In theory, poor countries should catch up with wealthy countries. Why?
- a. **Because poor countries have relatively little capital**
  - b. Because poor countries will trade more with wealthy countries

- c. Because wealthy countries tend to have stable governments
- d. A & C
- e. None of the above

*There is diminishing productivity of capital; because wealthy countries have a lot of capital and poor countries have little capital, additional capital in poor countries add a lot of productivity. Therefore, it's relatively easy to increase income/productivity in poor countries compared to wealthy countries. Thus, poor countries should grow faster and catch up to poor ones.*

14. Suppose there's an expected increase in inflation. Who does this increase in inflation hurt?
- a. Borrowers
  - b. Savers
  - c. Creditors
  - d. B & C
  - e. **No one**

*If the change in inflation is expected, it won't hurt anyone. Savers and creditors will see a higher nominal interest rate precisely to compensate. But if this increase in inflation was unexpected, then Option D would be the correct answer.*

15. Suppose the velocity of money increased and GDP was the same. What could happen?
- a. The supply of money falls
  - b. Inflation
  - c. Deflation
  - d. **A and/or B**
  - e. None of the above

*Recall the monetary equation:  $Mv = pLY_R$ . If  $v$ , velocity, increases and  $Y$  is constant, then either the price level,  $p$ , must rise (inflation) or the amount in the money supply,  $M$ , falls. Either course of action would balance the equation. A mixture of the two could also happen, assuming their total effect equals that of the change in velocity.*

16. Gresham's Law occurs when what happens?
- a. When consumers buy more as the price falls.
  - b. **When a currency becomes debased (reduce its inherent value).**
  - c. When the government prints a lot of money.
  - d. B & C
  - e. None of the above

*Gresham's Law occurs because a currency must, by law, be accepted at face value (the value that's stamped on it). If you debase the currency—reduce how much inherit value it has by eliminating the precious metals—then people must accept good currency to the same degree they accept bad currency. Thus people spend the bad currency and keep the good one. The bad currency becomes the defacto currency; prices rise to adjust.*

17. What is the Consumer Price Index?
- A basket of similar goods which is used to calculate inflation
  - A basket of a variety of goods which is used to calculate inflation**
  - A basket of a variety of goods which is used to calculate Gross Domestic Product
  - A basket of similar goods which is used to calculate Gross Domestic Product
  - None of the above

*CPI is used to calculate inflation; by tracking a variety of goods, the BLS can assemble a broad picture of how prices change. If the goods were similar, there would be a danger of changes in prices being isolated to one market and not capturing a change in the general price level.*

18. GDP has many things it should include but it doesn't. Which of the following items are explicitly excluded from U.S. GDP but shouldn't be?
- Sales of homes previously lived in.
  - Water sold to Coca-Cola bottling plants.
  - Industrial waste a spark-plug factory creates, which it dumps in a river.**
  - The combined market prices of all French wine Americans bought.
  - More than one of the above, but not all of them.

*Option D is included (under imports); the first two options aren't included by they shouldn't be. One is used homes—so they weren't produced the year in question—and the other is an intermediary good.*

19. Suppose France and England have similar economies, save inflation. Suppose France has 10% inflation and England has 6% inflation. If both levels of inflation are well established, compare these countries' nominal and real interest rates.
- France's nominal rate and real rate should be higher.
  - England's nominal rate and real rate should be higher.
  - France's nominal rate should be higher and the real rate should be the same.**
  - England's nominal rate should be higher than the real rate should be the same.

- e. None of the above

*Because the economies of England and France are similar, they should have the same real interest rate. Since France has more inflation, its nominal rate must be higher to make the real rates the same. For example, if the real rate is 2%, England must have a nominal rate of 8% and France must have a nominal rate of 12%.*

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

16 points each.

20. Four friends are working on an outdoor project. They are focusing on two tasks: carrying wood and cutting wood. The accompanying table indicates how many pounds of wood they can carry or number of accurate cuts they can make over the course of an hour.

<b>Friend</b>	<b>Pounds of Wood Carried</b>	<b>Number of Accurate Cuts Made</b>
Sheldon	20	10
Ursula	50	10
Amber	30	60
Tommy	60	50

Determine who has the comparative advantage in carrying wood and who has the comparative advantage in cutting wood.

*First, let's check it for wood carried.*

*Sheldon:*  $10 / 20 = 0.50 \text{ cuts}$

*Ursula:*  $10 / 50 = 0.20 \text{ cuts}$

*Amber:*  $60 / 30 = 2.00 \text{ cuts}$

*Tommy:*  $50 / 60 = 0.83 \text{ cuts}$

*While Tommy has the absolute advantage in carrying wood, Ursula has the comparative advantage. It's cheapest for her to carry wood because she gives up the fewest cuts.*

*Now for cuts made.*

*Sheldon:*  $20 / 10 = 2.0 \text{ pounds}$

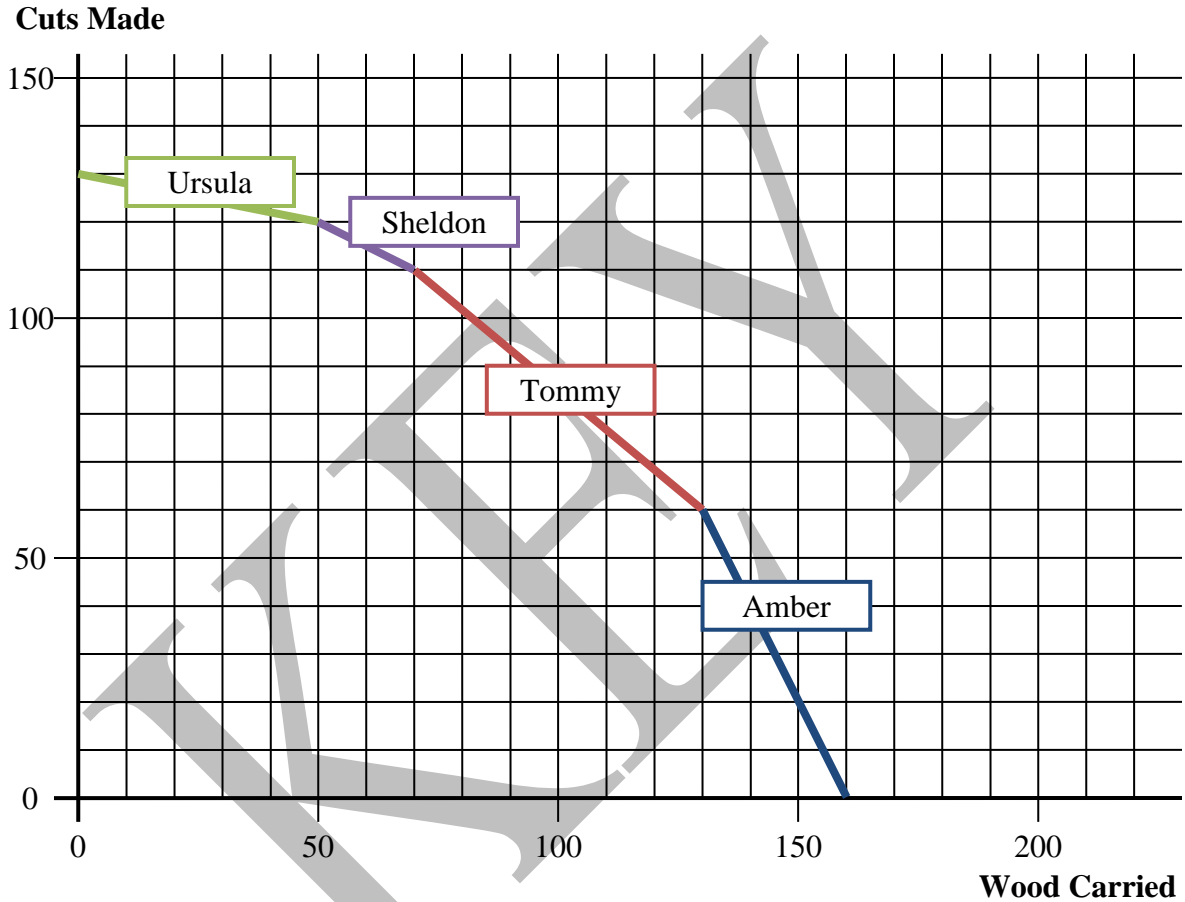
*Ursula:*  $50 / 10 = 5.0 \text{ pounds}$

*Amber:*  $30 / 60 = 0.5 \text{ pounds}$

*Tommy:*  $60 / 50 = 1.2 \text{ pounds}$

*Amber has the comparative advantage in cutting wood; she gives up the least amount of wood carrying when she cuts wood.*

21. Use the information from the previous question to construct a production possibilities frontier. Use the diagram provided, making sure to label each part of your production possibilities frontier. Be sure it's to scale!



22. Use the hypothetical information below to calculate the nominal GDP growth rate from 2013 to 2014. Remember to show all your work. Round your answer to the nearest two decimal places, if necessary. Finally, there is something fundamentally wrong about this set of data. Indicate what is wrong in the lines below. (HINT: Remember there are two ways to calculate GDP.)

Item	In Billions for Dollar (\$)	
	2013	2014
Total Consumption	\$18	\$24
Total Interest Earned	\$6	\$7



Total Investment	\$1	\$3
Total Imports	\$4	\$11
Total Profit	\$12	\$20
Total Exports	\$7	\$9
Total Rent	\$11	\$9
Total Government Spending	\$6	\$10

*The first step is to remember there are two ways to calculate GDP: spending and income. We don't have wages, so we'll have to use the spending approach. That means we add consumption (C), investment (I), and government spending (G) together. Then we subtract imports from exports and add the result (NX). We will do this for each year:*

$$2013: 18+1+6+7-4 = 28$$

$$2014: 24+3+10+9-11 = 35$$

$$(35-28)/28 * 100 = 25\% \text{ growth}$$

*That's a very high growth rate; now for the interesting part. What's wrong? First, note some things which may seem wrong but are **not**:*

- *In 2014, imports are greater than exports. That's not inherently a problem; countries have this happen all the time. Indeed, in some countries have exports greater than imports, others must have imports greater than exports.*
- *The growth rate is very high. Yes, that's unusual—10% is really high so 25% seems crazy—but it's not impossible.*

*So what is wrong? The hint about two different ways to calculate GDP serves a dual purpose. It's not just for the first part; it's for the second part as well. Try calculating GDP using the income approach with what we have (interest + profit + rent):*

$$2013: 6+12+11 = 29$$

$$2014: 7+20+9 = 36$$

*In theory, GDP should be the same either way you calculated it. But here we have a higher GDP using the income approach and we didn't even use wages! That means people in this country must be making a negative wage. They are paying their employer to work! That can't be; wages cannot be negative.*

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