

Name: _____
ECON 201—Montgomery College
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EXAM 4

- There are 110 possible points on this exam. The test is out of 100.
- You have two hours 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. M Aggregate demand | A. A problem for both monetary and fiscal policy |
| 2. E Change discount rate | B. A problem for fiscal policy only |
| 3. G Crony capitalism | C. A problem for monetary policy only |
| 4. I Deficit spending | D. Lesser-used tool of fiscal policy |
| 5. F Free market capitalism | E. Lesser-used tool of monetary policy |
| 6. B Implementation lag | F. Market prices are result of competition |
| 7. C Liquidity trap | G. Market prices influenced by the government for the benefit of privately-owned companies |
| 8. K Long run aggregate supply | H. Market prices are influenced by the government for the benefit of government-owned companies |
| 9. J Open market operations | I. Primary tool of fiscal policy |
| 10. L Short run aggregate supply | J. Primary tool of monetary policy |
| | K. Shape represents fundamentals of an economy |
| | L. Shape justified by sticky prices |
| | M. Shape justified by the quantity theory of money |

1. *Ceteris paribus, as the price level increases, real GDP must fall. Thus AD slopes down.*
2. *Changing the rate banks can borrow from the Fed is not often a tool the Fed employs when it tries to “steer” the economy. While they do change it a lot, that’s to keep it in line with the Federal funds rates; it is usually an effect and not a cause of monetary policy.*
3. *While there are market prices in crony capitalism, those prices are higher because of government constraints on competition. Certain private-sector companies benefit as a result.*
4. *To perform fiscal policy, the government must spend more than it brings in via taxes. Otherwise, AD won’t shift.*
5. *Free market capitalism is marked by not only private ownership but also freedom of entry and exit. Prices therefore emerge from competitive markets.*
6. *The time it takes to enact policy is a lag unique to fiscal policy; it requires various government agencies actually contracting with firms, readying multiple details, and other delays inherent to major projects.*

7. *The liquidity trap occurs when interest rates cannot fall any more. Since expansionary monetary policy, and only monetary policy, is built around lowering interest rates to shift AD right, it won't work if there's a liquidity trap.*
8. *LRAS is vertical because prices are completely flexible in the long-run. There is no relationship between the price level and real GDP. Real GDP is determined by the fundamentals like population, technology, and capital stock.*
9. *Buying and selling government bonds is open market operations; it's the most common tool the Fed uses to change the money supply and, therefore, interest rates.*
10. *SRAS slopes up because input prices are stickier than output prices. Thus as the price level increases, profit increases.*

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

11. Which of the following makes prices less sticky?
 - a. **Digital price tags**
 - b. A law establishing a minimum contract time of one year
 - c. An increase in government spending
 - d. A & B
 - e. None of the above

Digital price tags combat menu costs. With digital price tags, it's much cheaper to change prices, thus prices are more flexible.

B is not a good answer; if the option said this was a maximum contract time, then contracts would be altered more frequently and thus prices would be less sticky. But a minimum time means contracts, if anything, will last longer. Prices will be stickier.

12. In our growth lectures, we discussed that more education should create a more productive workforce. But as we discussed when explaining why more education leads to a higher income, that's not entirely true. (Recall there were two theories as to why more education led to a higher income.) Which idea would challenge the notion that more education leads to a more productive work force?
 - a. Human capital
 - b. The law of demand
 - c. **Signaling**
 - d. Convergence
 - e. None of the above

According to signaling theory, education leads to a higher income because having a degree demonstrates to potential employers that you have traits they value, such as intelligence and diligence. But this theory doesn't think of education as making people more productive. They were always productive; education just lets them demonstrate to strangers that they are. The workforce wouldn't be more productive, according to this theory, if everyone was better educated.

13. If the U.S. dollar depreciates, what happens in the U.S. economy?
- a. AD shifts
 - b. LRAS shifts
 - c. SRAS shifts
 - d. A & B
 - e. A & C

AD shifts right as the U.S. dollar's value drops because imports are more expensive and exports become less expensive. As a result, real GDP will rise. SRAS shifts left because the higher import prices means higher input prices. LRAS does not change at all.

14. Suppose the wealthiest 1% earned twice as much income while everyone else's income stayed the same. What would happen to the Gini Ratio?
- a. **It would increase**
 - b. It would stay the same
 - c. It would decrease
 - d. It would either decrease or increase, depending on the details.
 - e. It is impossible to tell with the information provided.

If the wealthiest earn more, and everyone's wealth stayed the same, the wealthiest would earn a larger share of the income. The Gini Ratio would increase to capture the more unequal society. (This is notably one of the problems of the Ratio: even if it rises, suggesting more inequality, that doesn't mean life for the poor is getting worse.)

15. Which of the following would **definitely** shift AD to the right?
- a. Increasing government spending while increasing taxes.
 - b. A major earthquake.
 - c. Incomes abroad fall.
 - d. A & C
 - e. **None of the above**

Option (A) won't change AD; while increasing spending would shift AD right, increasing taxes to fund it will shift to left. AD won't budge. Option

(C) results in AD shifting left, not right, and option (B) is a real shock; it would shift LRAS.

16. Which of the following is *not* something the Fed can do directly when it engages in monetary policy?
- a. **Increases/decreases taxes**
 - b. Changes the reserve requirement
 - c. Buys/sells government bonds
 - d. A & B
 - e. None of the above / It does all of these things directly

Taxes are fiscal policy. The other two are things the Fed can do.

17. When does fiscal policy not work well?
- a. When interest rates are at or near their lower bound.
 - b. **When productive workers stop doing private-sector work to do public-sector work.**
 - c. When there's a lot of income inequality.
 - d. A & B
 - e. None of the above

Option A is a problem for monetary policy. Option C isn't a thing. But Option B represents supply-side crowding out. The realities of bureaucratic incentives discourage hiring folks who have a hard time finding a job.

18. Why does GDP only include *final* goods and services?
- a. To capture the value of the good or service produced
 - b. To exclude used goods or services
 - c. **To avoid counting the same good or service twice**
 - d. To account for goods and services produced outside of the country
 - e. None of the above

By using the word "final," we exclude intermediary goods and services. Option A refers to "market value," option B refers to "produced," and option D refers to "in a country's borders."

19. We discussed several reasons why we should be optimistic about the future of developing countries. Which of the following is "good news" for economic growth in developing countries?
- a. Even a "small" amount of growth, say 7%, can have a tremendous impact.
 - b. Poorer countries should grow faster than wealthy countries.
 - c. To make poor countries a lot wealthier, rich countries would have to be only a little poorer (though they would have to be poorer).
 - d. **A & B**
 - e. All of the above

Option C is not true; the truth is even better than that. Growth is not a zero-sum game. One group doesn't need to be made worse off for another to be better off. While it's true that, in the scenario described, the gains by the winners exceed the losses by the loser, thus summing to something greater than zero, that's not the point. The point of "growth is not zero-sum" is that everyone can grow. You don't need to punish another country to get growth.

20. Which of the following is a true statement?
- a. Whenever there an unusually large number of jobs are created, the unemployment rate decreases.
 - b. The optimal level of unemployment is 0%.
 - c. The longer you're unemployed, the easier it is to find a job because it shows how eager you are.
 - d. A & C
 - e. **None of the above are true statements**

(A) might be the most tempting for you to choose but remember what happens when a lot of jobs are created: discouraged workers become encouraged. They enter the labor force looking for jobs and, as newly unemployed workers, can result in increasing the unemployment rate.

Both (B) and (C) are false as well. The optimal level of unemployment is the natural rate: about 5%. And being unemployed for a long time sends a bad signal to employers.

21. In the short-run, _____ prices are stickier than _____ prices.
- a. **Input; output**
 - b. Output; input
 - c. Import; export
 - d. Export; import
 - e. None of the above

Because contracts keep input prices static, input prices are stickier than output prices (though menu costs and consumer expectations keep both of them sticky).

22. Which of the following is an example of an automatic/built-in stabilizer?
- a. Open market operations
 - b. Increase spending on NASA projects
 - c. Cutting taxes
 - d. B & C
 - e. **None of the above**

Option A is monetary policy; automatic/built-in stabilizers are fiscal policy. But they are not any fiscal policy: deficit spending (more spending or lower taxes) must increase automatically with a recession. Any sort of tax cut or NASA spending doesn't do that; that requires congressional approval.

23. In *The Economic Organization of a P.O.W. Camp*, R.A. Radford explicitly described which economic concept occurring?
- Convergence
 - Gresham's Law**
 - Fundamental Theorem of Exchange
 - Monetary policy
 - None of the above

While much of the exchanges could be thought of as illustrating the Fundamental Theorem of Exchange, it was not explicitly discussed. But Gresham's Law, captured in prisoners making hand-rolled cigarettes, something that Radford discussed in detail.

24. According to the balance of payments, what happens when the American trade deficit increases?
- More U.S. dollars are circulated outside the country.
 - The U.S. exports more.
 - The relative price level in the U.S. rises.
 - A & B
 - None of the above**

While option A is true in the sense that more dollars are circulated outside the country, that's not according to the balance of payments. The BoP is about the relationship between the trade deficit and the capital account.

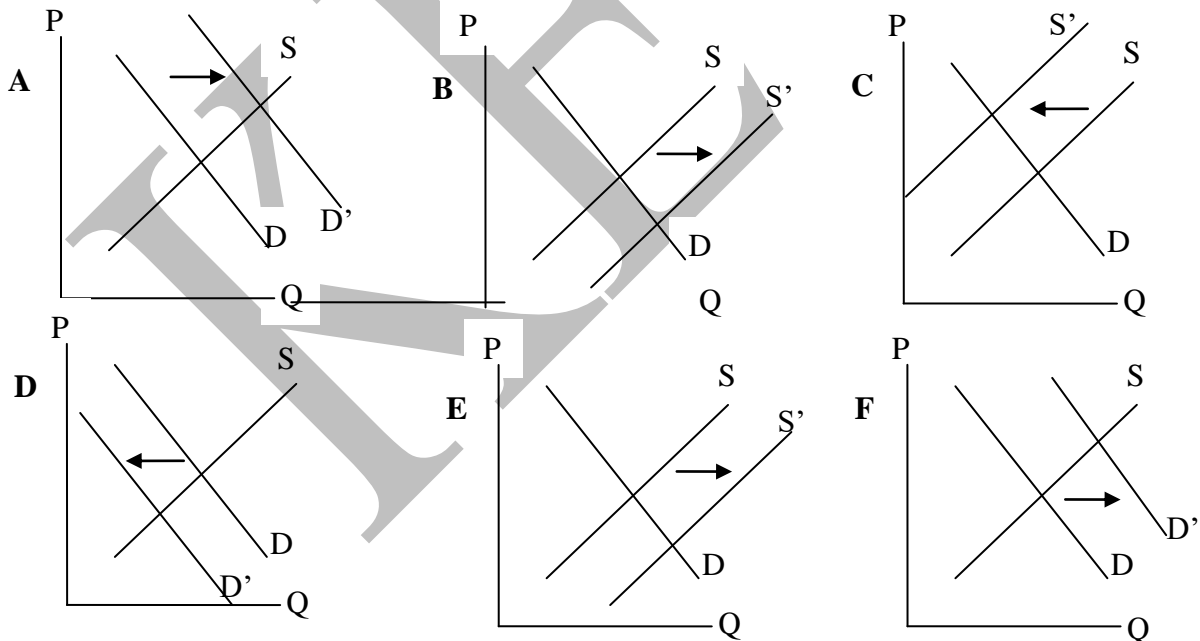
Part III: Short Answer. *Answer the following.*

12 points each.

25. Using the diagrams below, illustrate the effects of the following. Remember: do **not** shift more than one curve.
- The market for blueberries after a new study suggests eating blueberries will help you live longer.
 - The market for cars after the price of steel decreases (cars are made mostly of steel).
 - The market for corn after the price of soybeans rises (note that soybeans and corn are grown on the same land).
 - The market for paper after the price of pens rises.
 - The market for wheat after the invention of the tractor.
 - The market for video games during an economic recovery.

Explanations (not required):

- The study informs consumers blueberries are more beneficial than people thought. People like them more, causing demand to shift right.
- If steel, part of the cost for making cars, gets cheaper, cars will get cheaper. Supply shifts right.
- If you grow corn, you can't grow soybeans; one is the opportunity cost of the other. If soybean prices rise, your opportunity cost increases; supply shifts left.
- Paper and pens are complements. If pen prices increase, fewer people want pens and thus fewer people want paper; demand shifts left.
- Tractors make it easier to grow wheat; supply shifts right.
- If it's an economic recovery, incomes are rising. That puts upward pressure on the price of video games and more video games are bought and sold; video games are a normal good.



26. What is the difference between rational ignorance and rational irrationality? What role does rational ignorance play in understanding why rent-seeking occurs?

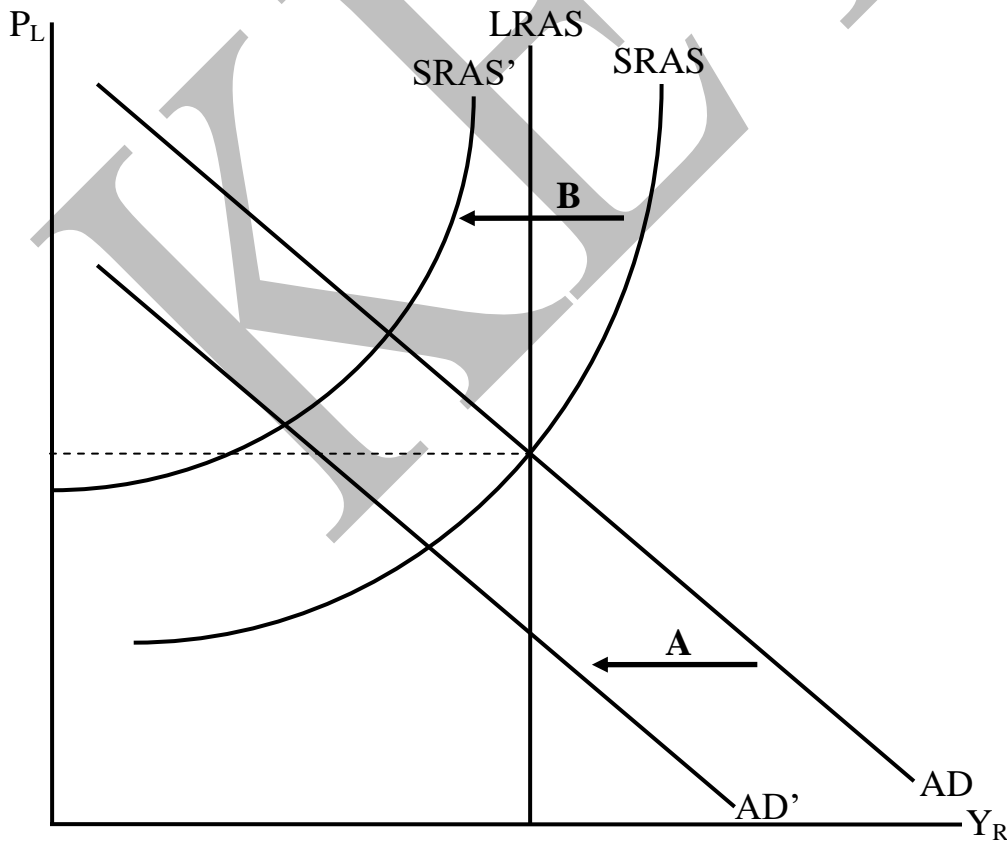
Both rational ignorance and rational irrationality note that voters are unlikely to change the election result with their vote. For rational ignorance,

that means they have very little incentive to be informed. It is costly to learn things and when the expected benefits are low (as they are here), people don't learn things. For rational irrationality, the insignificance of a voter's decision means it is cheap to indulge in foolish or illogical beliefs. But if the voter has emotional attachment to those beliefs, the benefits of indulging in them outweigh the costs (which, again, are very, very low).

Because people are rationally ignorant, it's easy for special interests—such as industries and advocacy groups—to gain privileges and protections (aka rent-seeking) without suffering public outcry. This is an application of the concentrated benefits and dispersed costs concept.

27. Consider the AD/AS diagram of an economy below. Then, in this order:
- Illustrate the effect of a drop in the money supply;
 - Illustrate the effect of increasing wages and regulatory requirements;
 - On the lines below, explain what historical event you just re-created.

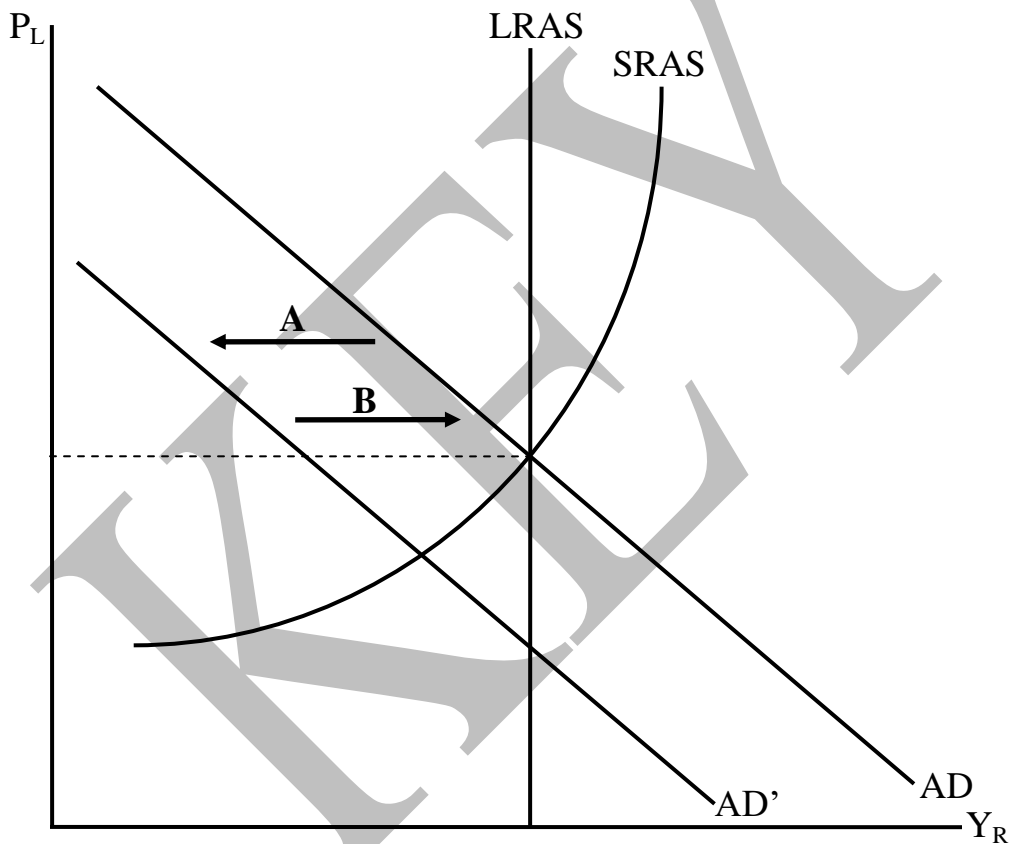
You should label each effect to make it clear what part of the graph answers which part of the question.



This is the Great Depression: a fall in the money supply followed by increases in regulations which made it expensive to do business.

28. Consider the AD/AS diagram of an economy below. Then:
- Illustrate the effect of a drop in expected returns on investment;
 - Illustrate the effect of a perfectly and completely corrective expansionary fiscal policy (i.e. the best case scenario for fiscal policy);
 - On the lines below, explain the role of the fiscal multiplier in this analysis.

You should label each effect to make it clear what part of the graph answers which part of the question.



The bigger the fiscal multiplier, the bigger the shift in AD.