Name: **KEY**
ECON 201—Montgomery College
David Youngberg

EXAM 1

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. **D** Capitalism

2. **F** Decreasing marginal benefit

3. **A** Fundamental Theorem of

   Exchange

4. **G** Increasing marginal cost

5. **B** Median voter theorem

6. **E** Rationality

7. **I** Scarcity

A. Explains why trade is so desirable.
B. Explains why politicians change their political platform when the electorate changes.
C. When people pursue their self interest
D. When the means of production are privately owned.
E. Why incentives matter
F. Why it's possible to buy too much of a good thing
G. Why oil gets more expensive as more is taken out of the ground
H. Why private property must be strictly enforced
I. Why there are choices

1. *By definition, capitalism is when private individuals own (and control) the means of production. It is not about motives. And, as public choice showed us, individuals operating in the public sphere also pursue their own self-interest.*
2. *The more you buy the less valuable each additional unit is. A million diamonds would be too much of a good thing (is it even good anymore?) because of decreasing marginal benefit.*
3. *All trade with complete information benefits both parties involved; like any sort of voluntary relationship, it's hard to argue that it's a bad thing.*
4. *The more total oil extracted, the harder it is to get it. Oil production started with the easiest oil to get (the low hanging fruit). As those sources are exhausted, harder places must be utilized to get the same amount of oil. Increasing marginal cost.*
5. *If voters change their preferences, the median voter will change, too (assuming the change affects the median voter; it's possible it won't). In the U.S., it's common to see a politician "pivot" when they move from the primaries (where only certain people can vote) to the general election (where a larger number of people can vote). Since the median*

voter has moved, the politicians move as well and the preferred policies change.

6. *Because people are rational, they respond to changes in the costs and benefits of an action. They respond to incentives. You could also argue C should go here, given that rationality is when people choose the best action given their preferences and constraints.*

7. *Scarcity is when a resource has more uses than what can be fulfilled. Because there is scarcity, there is a question of* which *use should be fulfilled. There is a choice. Otherwise, everyone gets all they want. No choices need to be made.*

Part II: Multiple Choice. *Circle the letter that corresponds to the best answer.*
4 points each

8. In the market for electricity, what happens when the price of computers fall?
   a. Demand shifts, causing quantity to increase
   b. Demand shifts, causing quantity to decrease
   c. Supply shifts, causing quantity to increase
   d. Supply shifts, causing quantity to decrease
   e. It is impossible to tell with the information provided

Electricity and computers are complements. When computers become more common (thanks to a falling price), the demand for electricity increases.

9. Which of the following is **not** a requirement for capitalism?
   a. Property must be strictly enforced.
   b. Property must be equally distributed.
   c. Owners must keep all or most of the profits.
   d. A & C
   e. None of the above

In order for private property to mean anything, violations of property must be strictly punished. The rule of law doesn't allow for exceptions. And owners must keep what they've earned. Otherwise it's no different from not having the property at all; the incentive effects are the same.
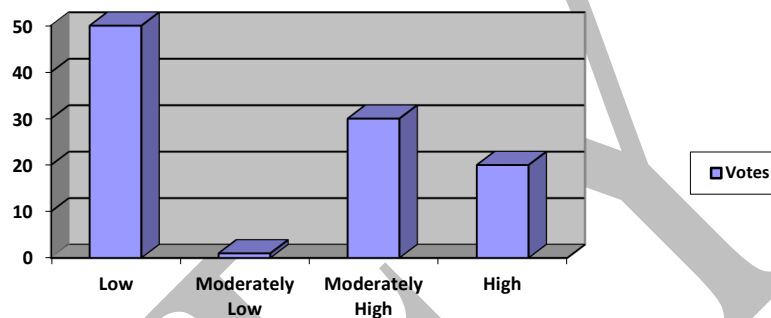
But property doesn't have to be distributed evenly for capitalism to work. The key is that the owners are properly incentivized, not that everyone has an equal shot.

10. The "Broken Window Fallacy" references what economic idea?
    a. Diminishing marginal utility
    b. Cost-benefit analysis

    c. **Opportunity cost**
    d. Comparative statics (supply and demand curve shifts)
    e. None of the above

Bastiat's essay argues that breaking windows, while good for people who make windows, is not good for society. Resources spent to replace the window could have been spent on something else. That something else is the opportunity cost.

11. Consider the following distribution of 101 voters on how much the country should spend on the army (there are 50 voters for Low, one voter for Moderately Low, etc.). Assume all voters vote.

If Candidate Nixon is for Moderately High spending and Candidate Kennedy is for Moderately Low spending, how many votes does each candidate get?
    a. Nixon—50…Kennedy—1
    b. Nixon—30…Kennedy—1
    c. Nixon—30…Kennedy—51
    d. Nixon—50…Kennedy—51
    e. None of the above

The Low voters don't find either candidate ideal but find Kennedy closest to their ideal and will vote for him. High voters also don't find either candidate ideal but Nixon is closest and will vote for Nixon. The one moderately low voter will vote for Kennedy and the 30 moderately high voters will vote for Nixon, leaving 51 Kennedy and 50 Nixon.

12. We discussed an idea called "concentrated benefits and dispersed costs." Why is it important that costs are dispersed?
    a. It means voters will vote for the best candidate.
    b. It means people are unlikely to complain.
    c. It means companies will work hard to get certain laws passed.
    d. It means rent will be very high.
    e. None of the above

Because costs are dispersed, the pain to individuals is small. Thus voters are likely to remain ignorant and/or apathetic about any law with concentrated benefits and dispersed costs. Unjust or inefficient laws will persist.

13. What does the balance of payments tell us about the trade deficit?
    a. Trade deficits occur within countries so it's not a big deal.
    b. The trade deficit is half of the problem: the other half is the net loss of investment.
    c. The trade deficit is the result of distinguishing capital flows with the flow of goods and services.
    d. A & C
    e. None of the above

The balance of payments argues that money that leaves a country in the form of a trade deficit comes back in the form of investment. It says something about the composition of an economy but nothing about its quality.

While option A is also true, one doesn't need the balance of payments to get there.

14. Which of the following is/are **not** an example of capital?
    a. The video game steel workers play when they are at home.
    b. The iron that's turned into steel.
    c. The trains which deliver raw materials to the steel mill.
    d. A & B
    e. None of the above

The video game is consumption. Though durable, it's not used for the production of other goods and services. The iron is used to produce steel but it's not durable. You can't use the same iron over and over again like you can with the trains. Only the trains—durable and used in the production process—are capital. Keep in mind that "producing goods or services" is a broad idea. It includes delivery, sales, management, hiring, advertising, janitorial work in the offices of the headquarters, and so on.

15. Which of the following contradicts the law of demand?
    a. An apartment in downtown DC has a higher rent compared to an apartment of the same size in the suburbs, but more people want the downtown apartment.
    b. If the price of gold falls, causing fewer people will use gold for their engagement rings because now gold is less prestigious.
    c. If the price of air travel falls, causing more people to buy air travel.
    d. A & B
    e. None of the above

Recall that the law of demand includes the clause of ceteris paribus. All other things—like the location of the apartment or the perception of gold—must be the same. And while option C changes just the price, result in a lower quantity, that affirms the law of demand. It doesn't contradict it.

16. Uber is software which allows smartphone users to purchase a ride from independent Uber drivers. As of September 2015, Uber is not yet in Scotland. But a similar app, Gett, is. Jim Edwards of Business Insider describes his experience using Gett during a particularly rainy day:[1]

    > I tried hailing a cab through Gett and ... answer came there none! There were no cabs on the little animated map, and there were no drivers answering my call
    >
    > It turns out that when there is peak demand for taxis — when it's raining or rush hour — then cab drivers are happy to take riders who hail them in the street. They don't respond to calls from Gett, which may require them to drive round the corner to where you actually are.
    >
    > With Uber, when peak demand kicks in, the app sets a price surge. Uber users hate the surge because it makes rides more expensive. But drivers love it because they know they will get more money. The Uber app's price surge alerts more drivers, and more of them hit the street. That is why Uber is so reliable: There are *always* more Uber cars. Yet on Gett, the cars are maxed out when it rains.

    Edwards argues because of this, Uber will win if it competes with Gett. What economic idea **best** explains Uber's advantage?
    a. **The law of supply**
    b. The law of demand
    c. Normal goods
    d. Efficient Market Hypothesis
    e. None of the above

Uber's strategy of increasing prices when demand is high takes advantage of the law of supply. A higher price means a higher quantity. Thus it's easier to find a driver. And while the price is higher, that's better than not being able to get a cab at all.

17. Based on the section about public choice, it seems tempting to conclude that democracy is terrible. It's filled with foolish and ignorant voters who are screwed over by a savvy minority. Benefits are concentrated, costs are dispersed, and politicians only care about swing voters. Monarchy, then, seems like a good idea. Why would that be the wrong conclusion to make?
    a. **Democracy is still better than the alternatives.**
    b. Monarchy is not a feasible option to switch to.

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[1] http://www.businessinsider.com/gett-v-uber-which-is-better-2015-9?r=UK&IR=T

c. Voters in a democracy sometimes stumble into the right decision.
d. Monarchy is incompatible with capitalism.
e. None of the above

Remember: economics is about doing the best with what we have. We are perfectly comfortable with saying that something is flawed and, at the same time, arguing it should be kept around. Being the best option is not the same as being the perfect option. Perfect options rarely exists. There are always trade-offs.

So while a monarchy might get rid of the problem of voters, it creates much larger problems with an even more entrenched elite, an elite now capable of extracting more from the population. Repeating the quote from the notes: as Winston Churchill once said, "Democracy is the worst form of government—except for all the others."

18. Which of the following is ***clearly*** an example of path dependence?
    a. A family sold one of their cars and turned part of their two-car garage into a workshop.
    b. **Desperate for seating for a dinner party, Mahmud bought a chair painted an olive color. He's not a fan of the color but it would be too hard to repaint it.**
    c. Sandra turned right instead of left while walking in the city. She immediately realized her mistake but didn't turn around. It took her an additional ten minutes to get where she was going.
    d. B & C
    e. None of these are clear examples of path dependence

Mahmud's chair color is path dependence. It made sense for him to buy the chair (this was an emergency chair purchase) but switching to a different color is not worth the cost. He doesn't despise the color, after all, and the chair is difficult to repaint. He's stuck with a chair he doesn't love.

The family turning their garage into a workshop might be path dependence. Maybe they sold their car to save money and, stuck with a garage that's now too big, made the best of the situation. But suppose instead they sold their car in order to have the space to convert to a workshop. Then it's hard to argue they were stuck with an inferior choice.

Sandra's just being foolish. She immediately noticed her mistake and could've turned around to correct it and get to where she's going faster. The switching costs, compared to the switching benefits, were low.

19. In April 2012, the *New York Times* published an article challenging the assumption that breast-feeding is free; breast-feeding is incredibly time-consuming. Women who breast-feed longer than six months earn sustainably less over the course of five years than those who breast-feed less than that.[2]

> Those longer-term nursing mothers spent more time out of the work force, or worked fewer hours, than their formula-feeding counterparts. The result of that shift in time spent on work or career stretched well beyond the months (or years) spent with a baby at the breast.

What economic idea is this article invoking to make its argument?
   a. Law of demand
   b. **Opportunity cost**
   c. Marginalism
   d. Law of supply
   e. None of the above

Breast feeding costs time (a lot of time) and while you're doing it it's hard to do anything else. (You not only have to hold the baby, no one else can do it for you!) By breast-feeding, you're not working and working is the opportunity cost. You don't really give up "time" when you breastfeed. Time is what you spend. You're giving up what you would otherwise do with that time which, in this case, is earning money and building up your career.

Part III: Short Answer. *Answer the following.*
   16 points each.

20. Do you support more or less income inequality? Briefly explain your reasoning using at least two justifications for why incomes differ (you can argue that they are not that important or really important explanations for why incomes differ, but you must explain why each should matter in this discussion). You will be graded on your reasoning, not your position.

Position: *This is irrelevant for grading; it exists only to help me understand your arguments.*

Each justification should draw from our list of reasons why incomes differ. For reasons favoring more inequality, the reasoning should focus on the importance of incentivizing efficient action. For reasons favoring more equality, the reason should focus on diminishing marginal returns without a loss of total production.

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[2] http://parenting.blogs.nytimes.com/2012/04/03/the-true-cost-of-breast-feeding-this-milk-isnt-free/?_r=0

In each case, you're not expected to explain why you think it's a big or small factor. The relative importance of, say, luck vs skill is a complicated question and beyond the scope of this course. It's only important for you to understand how these factors play a role in the income inequality discussion.

21. 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.

Friend	Pounds of Wood Carried	Number of Accurate Cuts Made
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 cuts
Ursula: 10 / 50 = 0.20 cuts
Amber: 60 / 30 = 2.00 cuts
Tommy: 50 / 60 = 0.83 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 pounds
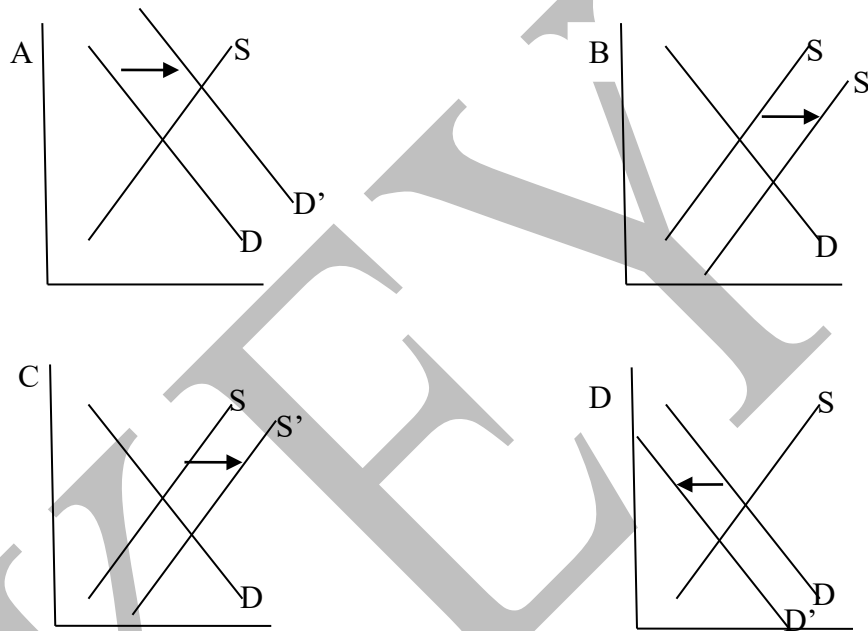*Ursula: 50 / 10 = 5.0 pounds*
Amber: 30 / 60 = 0.5 pounds
Tommy: 60 / 50 = 1.2 pounds

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

22. Using a complete and fully labeled diagram, illustrate the effects of the following (4 points each). Remember: do **not** shift more than one curve.

    a. The market for archery equipment after the release of *The Hunger Games* (whose main character is an expert archer).

    b. The market for romance novels after the profitability of textbooks falls (note both kinds of books are made with the same equipment and materials).

    c. The market for cars after the invention of the new steel alloy, which is stronger and cheaper than previous alloys.

    d. The market for coats after the price of sweaters falls (note both can keep people warm).

A. *Tastes change and people like archery more. Consumers value archery equipment more. Demand shifts up/right.*

B. *Because both goods use the same materials and machines, printing one means you can't print another. When the price of textbooks decreases, the opportunity cost of making romance novels have also decreased; one makes less money selling them. Since opportunity cost is like any other cost, supply shifts down/right. You can also think of this as textbook printers switching to romance novels. The additional producers shift supply down/right.*

C. *Since steel is used to make cars this cheaper alloy means the cost of inputs for cars has fallen. The cost to make cars shrinks; supply shifts down/right.*

D. *Because both goods keep people warm they are substitutes. As the price of sweaters decreases, people will use them instead of coats. Demand shifts down/left for coats.*