Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 150 points (to be scaled up to 210 points) and is scheduled to take 75 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12 -point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (10 points) Answer EITHER Part A OR Part B.
A) Use terminology and logic from this course to explain why business professors are not willing to work for as little as art professors are willing to work for.
B) There is a saying, "time is money." Explain that using language and terminology from this course.
2) (10 points) Answer EITHER Part A OR Part B.
A) What do economists mean by "rationing"? How are most goods rationed in the USA?
B) What is meant by "price system"? How is that seen on one of the graphs we have drawn this semester?
3) (12 points) For EITHER the event in Part A OR the event in Part B, explain why that is an economic reason for government. Do NOT draw a graph.
A) Providing a legal system
B) Income redistribution
4) (14 points) Answer EITHER Part A OR Part B.
A) Draw a PPF for corn and lightbulbs. Illustrate the effects of a drought. Explain why the curve moved as drawn.
B) Draw a PPF for pants and shirts. Illustrate the effects of more people in the country. Explain why the curve moved as drawn.
5) (14 points) Answer EITHER Part A OR Part B.
A) What is the main advantage of the market spending over voting in the public sector? Explain your logic. What is the main advantage of voting in the public sector over market spending? Explain your logic.
B) A lot of textbooks incorrectly state that police services is a public good. Give the economists' definition of a public good and prove that they are not a public good.
6) (16 points) Answer EITHER Part A OR Part B.
A) Draw a PPF for scarves and hats. Find a point where the opportunity costs of a hat is approximately two scarves. Explain how you found the point.
B) Draw a PPF for cars and desks. Use it to prove the Law of Comparative Advantage. Make sure you state the law.
7) (18 points) Answer EITHER Part A OR Part B.
A) Draw the S/D diagram for toilet paper. Illustrate the effects of people expecting the price of toilet paper to increase in March of 2020. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold?
B) Draw the S/D diagram for blueberries. Illustrate the effects of people finding out that they are one of the best foods you can eat. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold?
8) (18 points) Answer EITHER Part A OR Part B.
A) Suppose that a project costs $\$ 7000$. If completed, it would allow the firm to sell 1 item to each of 400 people at a profit of $\$ 20$ per item. There is a negative externality which affects 200 people at a cost of $\$ 6$ per person. Should this project be done? Would the market provide it? Would the government provide it? Show all work for each calculation and briefly explain what you did.
B) Suppose that a project costs $\$ 9000$. If completed, it would allow the firm to sell 1 item to each of 900 people at a profit of $\$ 9$ per item. There is a positive externality which affects 400 people at a benefit of $\$ 3$ per person. Should this project be done? Would the market provide it? Would the government provide it? Show all work for each calculation and briefly explain what you did.
9) (18 points) Answer EITHER Part A OR Part B.
A) Draw the $\mathrm{S} / \mathrm{D}$ for windows. Illustrate the effects of an increase in the price of mirrors. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold of windows?
B) Draw the S/D diagram for cars. Illustrate the effects of a decrease in the price of aluminum and steel. Explain why the curve(s) moved as drawn. What happens to the price and quantity of cars sold?

## 10) ( 20 points) Answer EITHER Part A OR Part B.

A) Draw the S/D diagram for TVs. Suppose the government put a quota on TVs. Illustrate the effects of that and explain why the graph changed as drawn. Are consumers helped or hurt? Are producers helped or hurt? Explain your logic for the consumers and producers.
B) Draw the S/D diagram for milk with a flat demand curve and a steep supply curve. Illustrate the effects of a tax on milk. Explain why the diagram changed as drawn. As drawn, who pays more of the tax? Explain how you see that on the graph.

