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 you should not "pull and all-nighter" the night before the exam. (In other words, do not follow Mustard Plug's advice.)
B) Not everybody attended last night's review session. Use terminology and logic from this course to explain why some people were not there.

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) Positive externality
B) Promoting competition

4) (14 points) Answer EITHER Part A OR Part B.
A) Draw a PPF for wheat and phones. Illustrate the effects of a better fertilizer. 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) The book says that "income redistribution" is a non-economic reason for government. I argue that it is also an economic reason for government, provided it is not done too much. From an economic point of view, why do we need some income redistribution? 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 face masks. Illustrate the effects of COVID-19 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 electric generators. Illustrate the effects of the weather in the past week. 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 $4000. If completed, it would allow the firm to sell 1 item to each of 250 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 $3000. If completed, it would allow the firm to sell 1 item to each of 300 people at a profit of $9 per item. There is a positive externality which affects 200 people at a benefit of $2 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 S/D for corn on the cob in grocery stores. Illustrate the effects of an increase in the price of trash bags made from corn oil. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold of corn on the cob in the store?

B) Draw the S/D diagram for clothing. Illustrate the effects of a decrease in the price of cotton. Explain why the curve(s) moved as drawn. What happens to the price and quantity of clothing 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.