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 100 points (to be scaled up to 160 points) and is scheduled to take 50 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) Explain how we concluded that the intersection of supply and demand is normally the socially optimal price and quantity.
B) What is the most common form of rationing in the USA. Explain how that method works.

2) (10 points) Answer EITHER Part A OR Part B.
A) What is wrong with the following statement? "The opportunity costs of taking this exam is I could have spent the hour playing video games or an hour of television or spending hour working out in the weight room. Another opportunity costs would be the ink in my pen which I use to write the answers." (Assume you are using a pen rather than a pencil.)
B) Economists were the people who coined the phrase, "There is no such thing as a free lunch." Explain the economic reason why a free meal is not really free for the person eating it.

3) (12 points) Answer EITHER Part A OR Part B.
A) How do we see the opportunity costs of balloons on a graph of the PPF (PPC) which has pants on the vertical axis and balloons on the horizontal axis? Explain how you know your answer is correct.
B) Draw a PPF for doorbells and clocks. Explain why it takes its shape.

4) (14 points) Answer EITHER Part A OR Part B.
A) Draw the PPF (a.k.a. PPC) for bread vs. cars. Illustrate the effects of the development of a new lighter material used in making cars. Explain why the curve moved as drawn.
B) Draw the PPF (a.k.a. PPC) for machines vs. food. Use it to explain why it is hard for developing countries to have economic growth.

5) (16 points) Answer EITHER Part A OR Part B.
A) Draw a graph for X and Y. Put a scale up to 10 on each axis. Draw a line through the points (2, 8) and (10, 4). Calculate the slope. Show all work and give a one sentence explanation for how you found the points and how you found the slope.
B) Draw a graph for X and Y. Put a scale up to 10 on each axis. Draw the line $Y = 4 - \frac{1}{2}X$. Explain how you found the line. What are the values of the Y-intercept and the X-intercept. Show all work and briefly explain what you did.

6) (18 points) Answer EITHER Part OR Part B.
A) Draw the supply and demand for blueberries. Illustrate the effects of people deciding they wanted to live a healthier life. (Blueberries have lots of anti-oxidants which are good for keeping diseases away.) Explain why the curve(s) moved and tell me what happens to the price and quantity sold.
B) Draw the supply and demand for cars in the Pittsburgh area. Illustrate the effects of Pittsburgh's plan to cut bus routes and raise bus fares. Explain why the curve(s) moved and tell me what happens to the price of cars and quantity sold.

7) (20 points) Answer EITHER Part A OR Part B.
A) Draw the supply and demand for fire trucks. Illustrate the effects of an increase in the price of ambulances. Explain why the curve(s) moved and tell me what happens to the price of cars and quantity sold.
B) Zimbabwe used to have a price ceiling on bread. Illustrate the effects of that ceiling on the supply and demand for bread. Prove that it hurts the consumers.