

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 170 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) What is the economic reason why firms offer warranties and guarantees?

B) Why do some jobs require a college degree even though the skills taught in college do not help the person to perform better?

2) (12 points) Answer EITHER Part A OR Part B.

A) We said that the  $MRS_{AB}^X = P_A/P_B$  for person X is consumption efficiency. Assuming that A is apples and B is bananas, explain why this should be true.

B) We said that the  $P_A/P_B = MRT_{AB}$  for person X is production efficiency. Assuming that A is apples and B is bananas, explain why this should be true.

3) (14 points) Answer EITHER Part A OR Part B.

A) Recently the Department of Economics and Business hired somebody. If you had been one of the over 340 candidates, what could you have done to signal you were serious about wanting to work at Bethany College and/or you are a hard worker? Explain how that action would send that signal.

B) What is the economic reason for companies to offer warranties and guarantees? Explain your logic.

4) (16 points) Answer EITHER Part A OR Part B.

A) Explain the *principal-agent problem*. What is the economic reason it occurs? How does it relate to asymmetric information?

B) What is *moral hazard*? Given an example from the banking industry and explain how they reduce the problem.

5) (22 points) Answer EITHER Part A OR Part B.

A) Draw an Edgeworth Box for Jane and Mike. There are 10 beers and 12 pizzas. Draw two indifference curves for each person such that you can find two points on the contract curve. State how you know they are on the contract curve. Draw the contract curve. Find a point where two indifference curves cross, i.e. not tangent. Prove that the point is not Pareto optimal. Who has a higher marginal valuation of pears at that point? Explain your logic.

B) Draw an Edgeworth Box for Mary and David. There are 15 hats and 18 shoes. Draw two indifference curves for each person such that you can find two points on the contract curve. State how you know they are on the contract curve. Draw the contract curve. Use that graph to find the utility possibilities frontier. Draw it and explain how you found it.

6) (26 points) Answer EITHER Part A OR Part B.

A) Draw a PPF/CPF/indifference curve diagram for wheat and DVD players with wheat on the horizontal axis. Show the autarky point and explain how you found it. Suppose that the world price of DVD players is lower than our price. Show the new price line and find the new production and consumption points. State how you knew which way the price line moved. Show our exports and imports and state how you knew they were where you drew them. State how you know that trade made us better off.

B) Show all work for all parts of this question and briefly explain what you did. Suppose the USA and Mexico each had 600 units of labor. In the USA it takes 20 units of labor to make a computer and 10 units of labor to make a television. In Mexico it takes 25 units of labor to make a computer and 5 units of labor to make a television. What is the relative price of a computer in each country? If both countries used half of their labor to produce each good, how much of each good would each country produce? Prove that if the two countries specialize, they can produce more and trade to leave both countries better off. Make sure you find the outputs of each country, the price they trade at, and the quantities going each direction.