

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 180 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) (14 points) Answer EITHER Part A OR Part B.

A) In Figure #1, What are the values for the SRTC of producing 20 items? What is the LRTC of producing 20 items? What is the wage rate? Explain how you got your answers and show all calculations.

B) For which quantity is the SRTC the same as the LRTC? When going from a quantity of 10 to a quantity of 15, is that IRTS, CRTS, or DRTS? Explain how you reached your conclusions and show all calculations.

2) (18 points) Figure #2 has at least four errors.

What are THREE of them? Explain how you know they are wrong.

3) (20 points) Answer EITHER Part A OR Part B.

A) Suppose a firm has a selling price of \$60/unit and an AVC of \$40/unit. If their total costs are \$4000, then what is their break-even point? If their sales are 300, then what is their DOL? If their sales increased by 10%, then how much would their profits increase? Show all work and explain what you did.

B) Why do all firms set $MR = MC$? Draw the learning curve and briefly explain why it takes its shape.

4) (24 points) Answer EITHER Part A OR Part B.

A) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm who is losing money but still in business. You do not need to draw the industry curves. Find the quantity they are producing. Find their losses. Show they would have even greater losses if they shut down. Explain how you found the quantity, their losses, and their losses if they shut down.

B) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm making zero profits. **Beside it**, draw the industry demand, short-run supply, and the long-run supply. Explain how the industry diagram relates to the firm's demand curve and how the firm's diagram relates to the industry's supply curve.

5) (24 points) Answer EITHER Part A OR Part B.

A) Draw the ATC/AVC/AFC/MC diagram. Illustrate an increase in the price of raw materials. Explain why the curve(s) moved as drawn.

B) Draw the ATC/AVC/AFC/MC diagram. Illustrate an increase in the price of health insurance. Explain why the curve(s) moved as drawn.

