

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Student Number: \_\_\_\_\_

**Instructions:** Fill in your name and student number as indicated above. Complete all questions in the space provided on the sheet. The exam is out of 12 total points, 1 point for correctly entering your name and student number and 1 point for each question.

## Quiz #5

### Completion

*Complete each sentence or statement.*

1. In the \_\_\_\_\_ -run all inputs are variable.
2. The equation for average total cost is defined as \_\_\_\_\_ cost divided by \_\_\_\_\_.
3. The equation for average variable cost is \_\_\_\_\_ \_\_\_\_\_ cost divided by \_\_\_\_\_.
4. Total cost is the sum of total variable costs and total \_\_\_\_\_ costs.
5. \_\_\_\_\_ cost is defined as the change in total cost divided by the change in quantity.
6. When doubling inputs leads to less than a doubling of output then we have \_\_\_\_\_ of scale and the LRATC (long-run average total cost curve) is upward sloping.
7. When both input and long-run costs rise in proportion to one another, then production is characterized by \_\_\_\_\_ \_\_\_\_\_ to scale and the LRATC curve is flat over this area.
8. Long run average total cost will never be \_\_\_\_\_ than short-run average total cost.
9. To produce a given level of output, the firm will choose the input mix with the \_\_\_\_\_ cost.
10. In the \_\_\_\_\_ -run at least one input is not variable.
11. Consider a firm that uses labor as an input to produce clothing. Given our discussion from last lecture, the \_\_\_\_\_ cost curve is decreasing when the marginal product of labor is increasing.

**Quiz #5**  
**Answer Section**

**COMPLETION**

1. ANS: long
2. ANS: total, qauntity
3. ANS: total variable, quantity
4. ANS: fixed
5. ANS: Marginal
6. ANS: diseconomies
7. ANS: constant returns
8. ANS: greater
9. ANS: lowest (smallest) etc.
10. ANS: short
11. ANS: marginal