EE211 Section 1 Quiz 7 Answers

1. **How and why does a firm's average-total-cost curve in the short run differ from its average-total-cost curve in the long run?**

See your lecture note on cost in the short run and cost in the long run
LRAC shows the lowest possible cost of producing each level of output when all inputs can be varied.

Each SRATC curve shows the lowest cost of producing any output when one or more factors are fixed.

No SR cost curves fall below the LR cost curve because the LRAC curve represents the lowest attainable cost for each possible output.

Hint: Check out the figure LRAC and SRATC on lecture note or eBook.

2. **Define economies of scale and explain why they might arise.**

Hint: LR cost
Hint: Check out the figure LRAC on lecture note or eBook.

When LRAC falls as output rises, the firm is said to have economies of scale.
The case of increasing returns to scale-output grows more than in proportion to the increase in inputs.
In consequence, LRAC rises less than in proportion to increases in output.

3. **Define diseconomies of scale and explain why they might arise.**

Hint: LR cost
Hint: Check out the figure LRAC on lecture note or eBook.

When LRAC is rising, a long-run expansion in production is accompanied by a rise in average costs.
If factor prices are constant, the firm's output must be increasing less than in proportion to the increase in inputs and the increasing cost firm is said to encounter LR decreasing returns.
Decreasing returns imply that the firm suffers some diseconomies of scale.

Answers all following questions. Provide full explanation with graphs (if necessary).

1. Farmer McDonald gives banjo lessons for $20 per hour. One day, he spends 10 hours planting $100 worth the seeds on his farm. What total cost has he incurred?
    a. $100
    b. $200
    c. $300
    d. $400

2. Diminishing marginal product explains why, as output increases.
    a. the production function and total-cost curve both get steeper.
    b. the production function and total-cost curve both get flatter.
    c. the production function gets steeper, and total-cost curve both get flatter.
    d. the production function gets flatter, and total-cost curve both get steeper.

3. The government imposes a $1,000 per year license fee on all pizza restaurants. As a result, which cost curves shift?
    a. average total cost and marginal cost
    b. average total cost and average fixed cost
    c. average variable cost and marginal cost
    d. average variable cost and average fixed cost

4. If a higher level of production allows workers to specialize in particular tasks, a firm will likely exhibit______________of scale and ______________________average total cost.
    a. economies; falling
    b. economies; rising
    c. diseconomies; falling
    d. diseconomies; rising

5. If Boeing produces 9 jets per month, its long-run total cost is $9 million per month. If it produces 10 jets per month, its long run total cost is $11 million per month. Boeing exhibits
    a. rising marginal cost.
    b. falling marginal cost.
    c. economies of scale
    d. diseconomies of scale