**Outline for Lecture 18**

Depending on the market price (determined by market demand and supply), the competitive firm may face three scenarios in the short run: profit maximization, loss minimization, and shutdown.

*Profit-Maximizing Case*

The first five columns of the table accompanying Figure 10.3 present cost data for a competitive firm. In the 6th column, we have the market price of \_\_\_\_, which equals marginal revenue.

Applying the MR = MC rule, how many units of output will the competitive firm produce to maximize profits in the short run? Explain.

Total profit equals per-unit profit multiplied by quantity sold. What is per-unit profit in this case? What is quantity sold? Given these two figures, what is total profit?

Figure 10.3 illustrates the profit-maximizing case: average variable cost (AVC) curve and average total cost (ATC) curve are U-shaped; marginal cost (MC) curve is also U-shaped and it intersects AVC and ATC at their minimums; MR = P line is drawn at the market price of \_\_\_\_.

In applying the MR = MC rule, we look for the intersection of \_\_\_\_ with \_\_\_\_, which yields an output of \_\_\_\_ units. At this output level, market price (P) of \_\_\_\_ exceeds average total cost (A) of \_\_\_\_, thereby producing a per-unit profit of \_\_\_\_. Per-unit profit is multiplied by output to yield a total profit of \_\_\_\_, which is illustrated by the area of \_\_\_\_.

*Loss-Minimizing Case*

If the market price falls, the competitive firm may face loss minimization.

The first five columns of the table accompanying Figure 10.4 present the same cost data. In the 6th column, we have the new, lower market price of \_\_\_\_, which equals marginal revenue.

Applying the MR = MC rule, how many units of output will the competitive firm produce to minimize losses in the short run? Explain.

Total loss equals per-unit loss multiplied by quantity sold. What is per-unit loss in this case? What is quantity sold? Given these two figures, what is total loss?

Figure 10.4 illustrates the loss-minimizing case. It is identical to Figure 10.3, except MR = P line is drawn at the new, lower market price of \_\_\_\_.

In applying the MR = MC rule, we look for the intersection of \_\_\_\_ with \_\_\_\_, which yields an output of \_\_\_\_ units. At this output level, average total cost (A) of \_\_\_\_ exceeds market price (P) of \_\_\_\_, thereby producing a per-unit loss of \_\_\_\_. Per-unit loss is multiplied by output to yield a total loss of \_\_\_\_, which is illustrated by the area of \_\_\_\_.

*Shutdown Case*

If the market price falls further, the competitive firm may have to shut down in the short run.

The first five columns of the table accompanying Figure 10.4 present the same cost data. In the 8th column, we have the new, lowest market price of \_\_\_\_, which equals marginal revenue.

The 9th column reports the losses that would occur at each output level. What is total loss at an output of zero? How about an output of one? Report total loss for all remaining output levels.

Based on these figures, what is the best short-run decision for the competitive firm: keep producing or shut down? Explain.

**Materials for Lecture 18**

Start with the textbook to get familiar with the content and progression of the lecture. Then, go to videos and supplemental articles, if provided, for further clarification and additional examples.

Textbook

Read carefully pages 208 through 211 from the textbook.

Video

Profit-maximizing case after three-minute mark

<https://www.youtube.com/watch?v=61GCogalzVc&list=PL336C870BEAD3B58B&index=29>

How falling market price may lead to loss-minimizing and shutdown cases

<http://www.youtube.com/watch?v=_-OWuxR0-V8>

Article

Article on price and production dynamics in competitive oil markets (sign up for free to read)

<http://www.economist.com/news/briefing/21688919-plunging-prices-have-neither-halted-oil-production-nor-stimulated-surge-global-growth>