Multiple Choice:

1. A strategy for deploying inputs to produce output is inefficient if
a. it would be possible to replace some of the workers with machinery or electronic equipment.
b. it is possible to produce more output with the same inputs by organizing or deploying the same inputs in a different manner.

2. A firm's production function is Q = 2KL, where K is the number of square feet of workspace and L is the number of man hours available to produce output. Which of the following statements is correct?
a. With 1000 square feet, 3 workers can produce 6,000 items.
b. With 2000 square feet, 5 workers can produce 6,000 items
c. With 1000 square feet, 5 workers can produce 10,000 items
d. Both a and c.

3. The Law of Diminishing Marginal Returns can be described as the Law of Eventually Diminishing Returns because it states that
a. marginal product of the variable input decreases at every possible value of the variable input..
b. marginal product of the variable input eventually begins to decrease as the quantity of the variable input is increased.
c. marginal product of the fixed input eventually begins to decrease as the quantity of the variable input is increased.
d. none of the above

4. Sally has two art projects due tomorrow. She has 5 hours to complete both projects. She plans to spend 3 hours working on the first project and 2 hours working on the second project. She believes that the last minute spent working on the first project will add 3 points to Project # 1 score, and the last minute spent working on the second project will add 20 points to the Project # 2 score. Which of the following statements is accurate?
a. Assuming that Sally's goal is to maximize the total number of points, Sally's plan will allocate her time efficiently.
b. Sally would earn a higher point total if she increased the time allocated to Project # 1.
c. Sally would earn a higher point total if she decreased the time allocated to Project # 1.
d. None of the above

5. If $MP_L = 7$ and $MP_K = 4$, then $MRTS_{LK}$ is equal to
a. 7/4
b. 4/7
c. 4*7
d. none of the above

6. For any Cobb Douglas production function, MRTS =
a. $\dfrac{\alpha AL^{(\alpha-1)} K^{\beta}}{\beta AL^{\alpha} K^{(\beta-1)}}$
b. $\dfrac{AL^{\alpha} K^{\beta}}{AL^{\alpha} K^{\beta}}$
c. Neither of the above

7. Suppose an industry is dominated by a large monopolist. If this industry exhibits increasing returns to scale,
a. splitting the large monopolist into several small competitive firms would increase efficiency.
b. splitting the large monopolist into several small competitive firms would decrease efficiency
c. splitting the large monopolist into several small competitive firms would not affect efficiency
d. None of the above.

8. Syverson analyzed concrete plant efficiency, and found large efficiency differences across plants. Which of the following provide potential explanations for the fact that all plants are not equally efficient?
a. The data might fail to capture differences in the quality of inputs used in the plants.
b. Workers at different plants might have different levels of experience.
c. Owners and managers might have different levels of ability for organizing production.
d. All of the above.

9. Benkard analyzed production data for the L-1011 airplane. He found that
a. worker marginal product increased as the workers gained experience by building more airplanes.
b. Some of the productivity gains were lost when the airplane design was modified.
c. Both of the above
d. None of the above.

10. Technological change
a. can make either labor or capital more productive
b. always increases the MP of capital
c. does not impact MRTS
d. none of the above

Essay Questions

A: Chapter 7 In-Text Questions

7.3 (BW p.217)
7.4 (BW p.223)
7.5 (BW p.226)
7.6 (BW p.232)
7.7 (BW p.240)

B: End-of-Chapter 7 Questions (BW p.246-248)

7.4, 7.6, 7.7, 7.8, 7.10, 7.11, 7.14, 7.15, 7.16, 7.17