Homework 3

Due on 4/2/2025, by 23:00

This assignment is optional but STRONGLY RECOMMENDED. If you do not submit the answers till the deadline, the score of your final exam will substitute for the score for this assignment. Submit only the correct letter for each task on eLearn under 'Quizzes' within 'COR2100-Economics and Society G13-14-15-16'. Note that the actual text of questions and answers is not supposed to appear on the eLearn quiz. You have unlimited attempts. The system is programmed to credit your last attempt. Be informed that if you submit an attempt and afterwards you re-open the quiz, you must submit your answers AGAIN or else the system will grade the unfinished attempt with 0 (because it is the last one) and there is NOTHING I can do to fix this after the fact. Late homework or homework submitted outside eLearn cannot be accepted as this would violate SMU official policy for fairness and transparency in grading. This assignment is protected by Grade Insurance™: If the assignment's average turns out to be below 75, an equal amount of bonus points will be given to every work, for the average to become 75. Direct any homework questions to your TA.

1. Which of the following is most likely to be a sunk cost for Starbucks?

    A. Employee uniforms with their name printed on them.

    B. The cost of a coffee machine.

    C. Accounting service.

    D. The water bill.

2. Which of the following is the case in a PC market?

    A. Bigger firms can influence the market price, while smaller cannot.

    B. Small firms must sell their product at a lower price to keep operating in the long-run.

    C. Older firms can maintain positive profits even in the long-run.

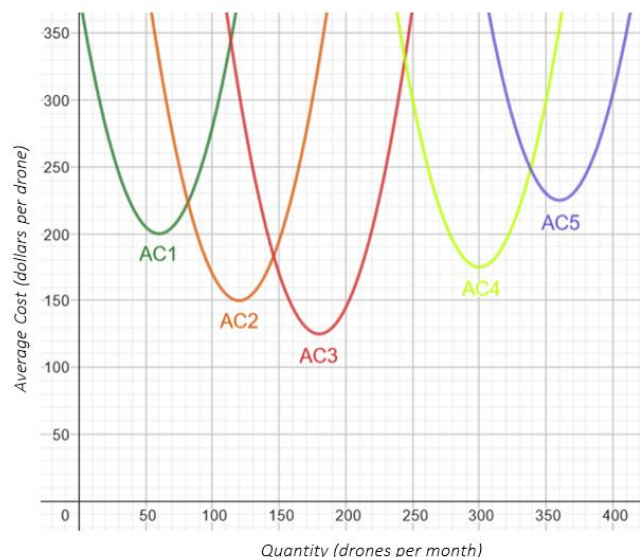   D. None of the above.

Figure 3.1: The S-R average cost curves for 5 different scales of production for a firm that produces drones.

3. According to figure 3.1, over which of the following ranges of production does the firm face dis-economies of Scale?

    A. From 0 to 75 drones per month.

    B. From 75 to 125 drones per month.

    C. From 125 to 225 drones per month.

    D. From 225 to 300 drones per month.

4. According to figure 3.1, which of the following could explain the LAC between 50 and 150 units?
    A. Ineffective communication between managers and employees.
    B. The firm enjoys quantity discounts for raw materials.
    C. The firm has more profits.
    D. The firm pays higher salaries to newly hired workers.

5. A firm can produce 10,000 backpacks with 3 alternative combinations of capital (K) and labor (L): (i) 120K and 60L; (ii) 100K and 70L; (iii) 80K and 50L; Which of the following is accurate?
    A. All combinations are efficient.
    B. Only combination (i) is inefficient.
    C. Only combination (ii) is inefficient.
    D. Only combination (iii) is inefficient.
    E. Combinations (i) and (ii) are inefficient.
    F. Combinations (i) and (iii) are inefficient.
    G. Combinations (ii) and (iii) are inefficient.

6. Which of the following indicates technological improvement?
    A. Producing more output with less labor but with the same capital.
    B. Producing more output with the same labor but with less capital.
    C. Producing more output with the same labor and with the same capital.
    D. All of the above.

7. Which of the following products is most likely to be homogeneous among different sellers?
    A. Apples.
    B. Bicycles.
    C. Mobile phones.
    D. Robot vacuums.

8. Which of the following should be taken into account when a firm chooses its profit maximizing quantity?
    A. Fixed cost.
    B. Sunk cost.
    C. Both A and B.
    D. None of the above.

q	MC	VC
1	30	30
2	26	56
3	20	76
4	24	100
5	30	130
6	42	172
7	53	225

Table 3.1: quantity (q), MC and VC for a PC firm.

9. Refer to table 3.1, which of the following is most likely for the firm If the market price is $24?
    A. To keep operating indefinitely.
    B. To shut down immediately.
    C. To exit the market in the long-run.

10. Refer to table 3.1. Which of the following is most likely for this firm if the fixed cost is $30 and the market price is $30?

    A. To keep operating indefinitely.

    B. To shut-down in the short-run.

    C. To exit the market in the long-run.