Question 1

11 points (4 + 1 + 2 + 2 + 2)

(a) 4 points:
• One point is earned for a correctly labeled graph with a downward-sloping demand curve, with MR below demand.
• One point is earned for identifying the profit-maximizing output, $Q_M$, at $MC = MR$.
• One point is earned for identifying $P_M$ on the demand curve above $Q_M$.
• One point is earned for showing the area of loss shaded completely.

(b) 1 point:
• One point is earned for stating that price is greater than average variable cost, or total revenue is greater than total variable cost.

(c) 2 points:
• One point is earned for stating that the number of firms will increase.
• One point is earned for stating that economic profits will fall to zero or fall to a normal profit.

(d) 2 points:
• One point is earned for stating no.
• One point is earned for explaining that the firm’s price is greater than marginal cost.

(e) 2 points:
• One point is earned for stating yes.
• One point is earned for explaining that the firm produces a quantity of output in the declining portion of its long-run ATC.
Write in the box the number of the question you are answering on this page as it is designated in the exam.

(a) \[ D = AR \]

(b) For the company to continue to produce at a loss, its average variable cost must be lower than price.

(c) (i) The number of firms will increase.
   (ii) The company will yield a normal profit (zero economic profit).

(d) (i) No. The allocatively efficient level is where \( MC = P \) and the company will be producing where \( MC = MR \), at the profit-maximizing point.

(e) Yes. At the quantity that the company would produce in the long-run, the slope of the ATC graph (where it is tangent to \( P \)) is decreasing as quantity increases. Therefore, it will be operating in a region where economies of scale exist.
Write in the box the number of the question you are answering on this page as it is designated in the exam.

1. (a) [Diagram with labels: MC, ATC, P, Pm, Pc, Qm, Qn, Q]

   (b) The price of the product should be higher than the average variable cost.

   (c) (i) The number of firms will increase because there are economic profits

   (ii) The company's profit will decrease to the degree of zero, a normal profit.

   (d) It will produce the allocatively efficient level of output, because it produces at where MC = MR.

   (e) The company will not operate with the economies of scale, since the entry barrier is relatively low, enabling other firms to get in the market.
Write in the box the number of the question you are answering on this page as it is designated in the exam.

(a) \[ P \]

(b) In the short-run, producing at a loss is temporary situation. To succeed in the long-run, the company should continue to produce at a loss. This is because even if the company produces the product at a loss, in the view of long-run, the price is back at normal level and the company won't get a loss no more.

(c) (i) The number of firms will increase. The new company realizes that a cleaning product is profitable so that they enter to the market despite monopoly market, and the structure of market will become competitive market as the number of firms will increase.
(c) (ii) The company’s profit would decrease in short run. However, if the structure of market become competitive market, the company’s profit increase more than before. This is because the company will benefit from competition by developing new way of cleaning.

(d) The company will produce the allocatively efficient level if they decided to continue to produce at a loss. As I mentioned above, the form of company’s profit will change as the market structure change. In competitive market, the company can produce the allocatively efficient level of output. Because in this market, every firms is struggles to earn a profit by attempting a new way.
Question 1

Sample: 1A
Score: 11

The student earned all 11 points for this question.

Sample: 1B
Score: 7

The student earned all 4 points in part (a), 1 point in part (b), and 2 points in part (c). The student lost both points in part (d) for stating that the firm would produce the allocatively efficient level of output and for an incorrect explanation. The student lost both points in part (e) for stating that the firm would not be producing in the range of economies of scale and for an incorrect explanation.

Sample: 1C
Score: 1

The student lost all 4 four graphing points in part (a). The graph does not portray monopolistic competition. Although a QM and PM are labeled at the intersection of two curves, no points were earned because the curves are not identified. In part (b) 1 point was lost because the response does not refer to the shutdown point as being where P = AVC. The student earned 1 point in part (c) for stating that the number of firms will increase. The student lost 1 point in part (c) because the response must state that profits decline to zero. The student lost both points in part (d) for stating that the firm would produce the allocatively efficient level of output and for providing an incorrect explanation. The student omits part (e) in the response, so both points were lost.