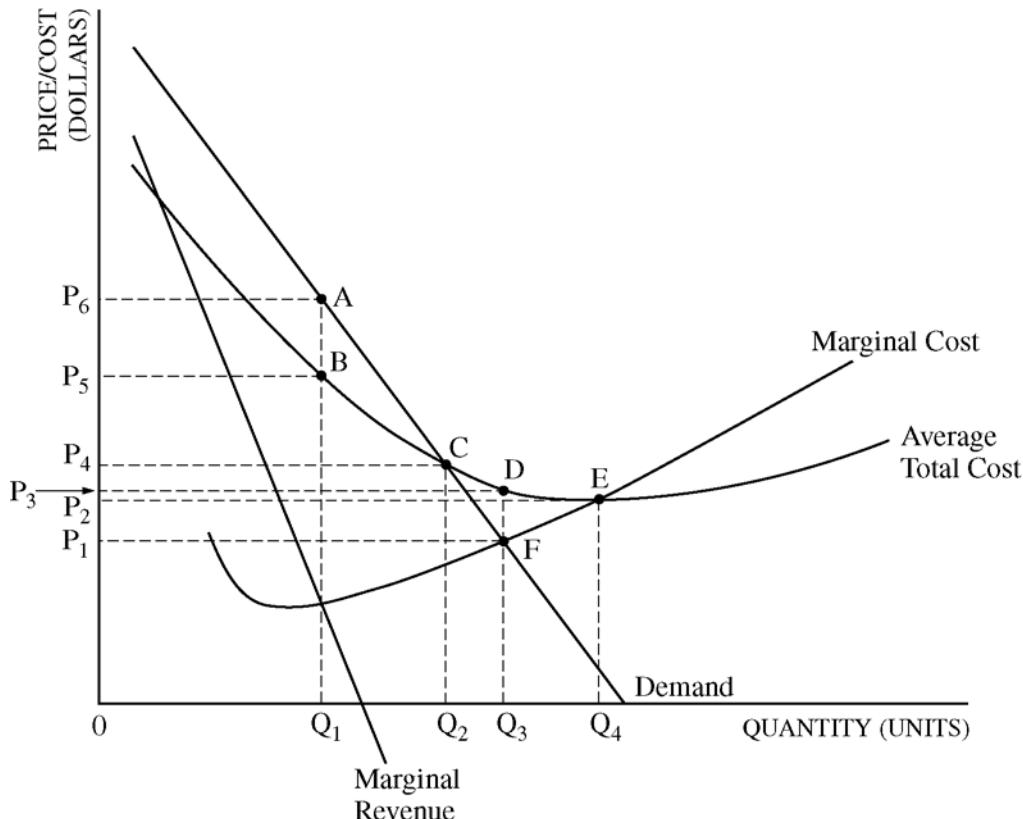


**2008 AP® MICROECONOMICS FREE-RESPONSE QUESTIONS**

3. Social efficiency is affected by government policy and the structure of markets.

- (a) For a competitive market for which there is a binding (effective) price ceiling, draw a correctly labeled graph and label the price ceiling “ $P_c$ ”, the quantity sold “ $Q_A$ ”, and the socially efficient output “ $Q_B$ ”.
- (b) The graph below shows a natural monopoly.



- (i) Using the labeling in the graph, identify each of the following.
- (1) The profit-maximizing output
  - (2) The socially efficient output
- (ii) At the socially efficient output, is the monopoly making a profit or incurring a loss? Using the labeling on the graph, identify the area of profit or loss.

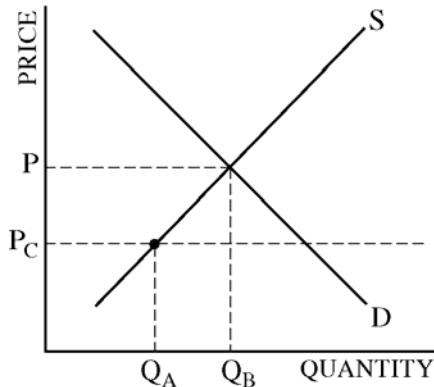
**STOP**

**END OF EXAM**

**AP® MICROECONOMICS  
2008 SCORING GUIDELINES**

**Question 3**

**7 points** (3 + 4)



(a) 3 points:

- One point is earned for a correctly labeled supply and demand graph with a price ceiling indicated below the market equilibrium.
- One point is earned for correctly labeling  $Q_A$ .
- One point is earned for correctly labeling  $Q_B$ .

(b) 4 points:

(i) 2 points:

- One point is earned for identifying  $Q_1$  as the profit-maximizing output.
- One point is earned for identifying  $Q_3$  as the socially efficient output.

(ii) 2 points:

- One point is earned for recognizing that at  $Q_3$ , the monopolist incurs a loss.
- One point is earned for identifying the area of loss,  $P_1P_3DF$ .