Question 1

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

(a) 1 point:
- One point is earned for stating that the firm must be covering its AVC (or TVC), or \(P > AVC\).

(b) 4 points:
- One point is earned for a correctly labeled graph with MR below the demand curve.
- One point is earned for identifying profit-maximizing quantity at MR=MC.
- One point is earned for identifying price on the demand curve above equilibrium quantity and below ATC.
- One point is earned for showing the correct loss area.

(c) 2 points:
- One point is earned for indicating that total revenue will fall.
- One point is earned for explaining that demand is elastic or MR is positive.

(d) 4 points:
- One point is earned for indicating that the profit-maximizing output will increase.
- One point is earned for explaining that the marginal revenue curve will shift to the right.
- One point is earned for concluding that total cost will increase.
- One point is earned for explaining that output increases.
Question 2

7 points \((3 + 2 + 2)\)

(a) 3 points:
- One point is earned for a correctly labeled graph with equilibrium price and quantity.
- One point is earned for showing the correct area of consumer surplus.
- One point is earned for showing the correct area of producer surplus.

(b) 2 points:
- One point is earned for showing the price ceiling below the equilibrium.
- One point is earned for shading the correct area of consumer surplus and producer surplus.

(c) 2 points:
- One point is earned for indicating that consumer surplus will decrease.
- One point is earned for indicating that producer surplus will not change.
Question 3

7 points \((1 + 1 + 3 + 2)\)

(a) 1 point:
  - One point is earned for stating that \(\text{MRP}=\text{MFC}\).

(b) 1 point:
  - One point is earned for calculating the price: \(\frac{80}{20} = 4\)

(c) 3 points:
  - One point is earned for a correctly labeled graph with downward-sloping demand curve.
  - One point is earned for drawing a horizontal supply curve.
  - One point is earned for showing equilibrium amount of labor.

(d) 2 points:
  - One point is earned for stating that the amount of labor will increase.
  - One point is earned for explaining that \(\text{MRP}>W\).