The College Board: Connecting Students to College Success

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Question 1

12 points (4 + 3 + 3 + 2)

(a) 4 points:
- One point is earned for correctly labeled axes and an MR curve below a downward-sloping demand curve.
- One point is earned for showing profit-maximizing Q at MC=MR.
- One point is earned for identifying P on the demand curve above Q.
- One point is earned for showing that P>ATC at Q.

(b) 3 points:
- One point is earned for concluding that profit-maximizing Q and P will not change.
- One point is earned for correctly explaining that the lump-sum tax will not affect MC.
- One point is earned for concluding that profits will decrease.

(c) 3 points:
- One point is earned for concluding that profit-maximizing Q will increase and P will decrease.
- One point is earned for explaining that the MC curve shifts down.
- One point is earned for concluding that profits will increase.

(d) 2 points:
- One point is earned for concluding that GCR’s profits will fall in the long run.
- One point is earned for stating that new firms will enter the market.
Question 2

6 points (1 + 2 + 3)

(a) 1 point:
- One point is earned for correctly labeled axes with a horizontal labor supply curve at $90.

(b) 2 points:
- One point is earned for identifying the profit-maximizing output as 75, or between 75 and 79.
- One point is earned for stating that MRP is greater than $90 for the fifth worker, but less than $90 for the sixth worker.

(c) 3 points:
- One point is earned for stating that the quantity of labor HZRad hires increases.
- One point is earned for the explanation that the marginal product of labor increases at each input level, or the marginal product of labor curve shifts to the right, or the demand curve for labor shifts to the right.
- One point is earned for stating that the wage rate will remain constant.
Question 3

6 points \((1 + 1 + 1 + 2 + 1)\)

(a) 1 point:
- One point is earned for identifying the market as an oligopoly, since there are only two firms and their actions are mutually interdependent.

(b) 1 point:
- One point is earned for stating that Rankin Wheels will choose early departure.

(c) 1 point:
- One point is earned for stating that Roadway’s dominant strategy is early departure.

(d) 2 points:
- One point is earned for stating that early departure is not a dominant strategy for Rankin Wheels.
- One point is earned for reasoning that if Roadway chooses a late departure, Rankin Wheels is better off choosing a late departure.

(e) 1 point:
- One point is earned for identifying $900 as Rankin Wheels’ daily profit.