Macro Module 22 price-misperceptions practice exam questions

(The attached PDF file has better formatting.)

Let L = worker-hours and W = real wage rate per worker-hour

- The demand curve for labor is L^d = 413 workers-hours – 21 × W
- The supply curve for labor is L^s = 19 × W

The monetary authorities increase the money supply 14.35%, the price mis-perceptions model holds, employers know the true price level, and workers are not aware that the price level has changed.

Question 21.2: Equilibrium real wage rate

What is the equilibrium real wage rate *before* the change in the money supply?

Answer 21.2: 413 – 21W = 19W ⇛ W = 413 / (21 + 19) = 10.3250

(quantity demanded = quantity supplied in equilibrium)

Question 21.3: Equilibrium quantity of labor supplied

What is the equilibrium quantity of labor supplied before the change in the money supply?

Answer 21.3: Derive by either demand curve or supply curve:

- Demand curve: 413 – 21 × 10.3250 = 196.18
- Supply curve: 19 × 10.3250 = 196.18

Question 21.4: Supply curve for labor

What is the supply curve for labor after the change in the money supply?

Answer 21.4: L^s = 19 × (1 + 14.35%) × W = 21.7265 × W

Workers over-estimate the real wage rate by (1 + 14.35%).

Question 21.5: Equilibrium real wage rate

What is the equilibrium real wage rate *after* the change in the money supply?

Answer 21.5: 413 – 21W = 21.7265W ⇛ W = 413 / (21 + 21.7265) = 9.6661

(quantity demanded = quantity supplied in equilibrium)

Question 21.6: Equilibrium quantity of labor supplied

What is the equilibrium quantity of labor supplied after the change in the money supply?

Answer 21.6: Derive by either demand curve or supply curve:

- Demand curve: $413 - 21 \times 9.6661 = 210.01$
- Supply curve: $21.7265 \times 9.6661 = 210.01$