14. Effect of a Change in a Variable Input Price on the Model of the Firm
(the Other Input Price and the Output Price Held Fixed)

**Long Run:**

1. Change in the input price ratio, and hence in the slope of the isocost lines.
2. Changes in the locations of the tangencies between isocost lines and isoquants.
3. Change in the long-run expansion path.
5. Change in the intersection of the long-run marginal cost curve and the marginal revenue line, and hence in the profit-maximizing output.
6. Change in the isoquant relating to the profit-maximizing output.
7. Since there is a new long-run expansion path (Step 3) and a new isoquant relating to the profit-maximizing output (Step 6), there is a new intersection of them, and hence a change in the profit-maximizing quantities of labor and capital inputs.

**Short Run (Change in the Price of Labor):**

1. There is no change in the short-run expansion path because the quantity of capital input is fixed.
2. The short-run total cost curve still changes. It pivots around the fixed-cost point on the vertical ($) axis changing its slopes.
3. Change in the short-run marginal cost curve.
4. Change in the intersection of the short-run marginal cost curve and the marginal revenue line, and hence in the profit-maximizing output.
5. Change in the isoquant relating to the profit-maximizing output.
6. Change in the intersection relating to the profit-maximizing output and the expansion path, and hence a change in the profit-maximizing quantity of labor input.