**AP Sample Free Response for Ch. 12.**

Number of Workers MRP per day

1 $450

2 $500

3 $450

4 $400

5 $300

6 $100

2. The table above gives the short-run marginal revenue product of labor per day for a perfectly competitive firm.

The firm is currently selling its product at the market price of $5.

(a) Calculate the marginal (physical) product of the third worker.

(b) Define the law of diminishing marginal returns and explain why it occurs.

(c) Diminishing marginal returns first occur with the hiring of which worker for the firm?

(d) What is the highest daily wage that the firm is willing to pay to hire the fifth worker?

(e) What will happen to the demand for labor if the market price of the product increases? Explain.