Solution:

(1)

Since the purchase was only 340,000 units and sales was 500,000 units, the company must have used its LIFO reserves to fulfil the demand.

Thus, we have:

$$Sales = \$1{,}500{,}000$$

$$Purchases = \$680{,}000$$

$$Inventory\ Used = 30{,}000\ \times 1.2 + 50{,}000\ \times 1.1 + 80{,}000\ \times 1 = \$171{,}000$$

This means the cost of goods sold was:

$$Cost\ of\ Goods\ Sold = \$851{,}000$$

Thus, we have

$$Gross\ Profit = Sales - Cost\ of\ Goods\ Sold = \$649{,}000$$

And so, the net profit will be

$$Net\ Income = \$649{,}000 - \$500{,}000 = \$149{,}000$$

Thus income tax for 2019 would be

$$Income\ Tax = 0.4 \times \$149{,}000 = \$59{,}600$$

(2)

If the company had met is demand out of current purchase, then the purchases would be 500,000 units of $2 each making $Purchases = \$1{,}000{,}000$

Thus

$$Gross\ Profit = \$1{,}500{,}000 - \$1{,}000{,}000 = \$500{,}000$$

Thus, net income would be

$$Net\ Income = \$500{,}000 - \$500{,}000 = \$0$$

Which essentially means that there will be no income tax, had the company fulfilled its use via the purchases only.