**Solution:**

(1)

Since the ending inventory was understated by $20,000, this means that the cost of goods sold is overstated by $20,000 since we assumed that this cost is sold to customers.

Thus, this means that the gross profit generated will be understated by $20,000.

What does this mean? The income before tax will be hence understated by $20,000. Since income taxes are 40% on income, the taxes will be understated by $8,000, leading to the net income being understated by $12,000.

Thus, the effect can be written as a table:

|  |  |
| --- | --- |
| Particulars | Effect |
| Income Before Tax | -$20,000  (understated) |
| Income Tax | -$8,000  (understated) |
| Net Income | -$12,000  (understated) |
| Retained Earnings | -$12,000  (understated) |

(2)

In 2016, this means that the beginning inventory has been understated by $20,000, which means that the cost of goods available for sale is understated by $20,000. Since ending inventory is calculated correctly, the cost of goods sold is understated by $20,000.

Thus, the gross profit generated will be overstated by $20,000.

By applying the same logic as in (1), we can see that all the other items will be overstated in accordance with the following table:

|  |  |
| --- | --- |
| Particulars | Effect |
| Income Before Tax | +$20,000  (overstated) |
| Income Tax | +$8,000  (overstated) |
| Net Income | +$12,000  (overstated) |
| Retained Earnings | +$12,000  (overstated) |