**Solution:**

(1)

(a) Consider FIFO. Under FIFO, the goods that are bought the earliest are sold first. Thus, in accordance with this principle, the goods that are bought the latest remain in inventory. Thus, the final inventory is valued as follows:

- 4,000 units at $15 per unit, resulting in $60,000 of inventory left.

The net income can be calculated in the table as follows:

|  |  |
| --- | --- |
| STATEMENT OF INCOME  (in thousands of $) | |
| Particulars | Amount |
| Net Sales  Cost of Goods Sold:  Purchase of Goods  Beginning Inventory | 120  117  0 |
| Cost of Goods Available for Sale  Deduct: End Inventory | 117  (60) |
| Net Cost of Goods Sold | 57 |
| Gross Margin  Deduct: Other Expenses | 63  (31) |
| Income Before Tax  Deduct: Income Tax (40%) | 32  (12.8) |
| Net Income | 19.2 |

(b) Consider LIFO. Under LIFO, the goods that are bought at the latest are sold first. Thus, in accordance with this principle, the goods that are bought the earliest remain in inventory. Thus, the final inventory is valued as follows:

- 1,000 units at $9 per unit

- 1,000 units at $10 per unit

- 1,000 units at $11 per unit

- 1,000 units at $12 per unit, resulting in $42,000 of the inventory left.

The statement of income can be calculated as follows:

|  |  |
| --- | --- |
| STATEMENT OF INCOME  (in thousands of $) | |
| Particulars | Amount |
| Net Sales  Cost of Goods Sold:  Purchase of Goods  Beginning Inventory | 120  117  0 |
| Cost of Goods Available for Sale  Deduct: End Inventory | 117  (42) |
| Net Cost of Goods Sold | 75 |
| Gross Margin  Deduct: Other Expenses | 45  (31) |
| Income Before Tax  Deduct: Income Tax (40%) | 14  (5.6) |
| Net Income | 8.4 |

(2) (a)

|  |  |
| --- | --- |
| STATEMENT OF INCOME  (in thousands of $) | |
| Particulars | Amount |
| Net Sales  Cost of Goods Sold:  Purchase of Goods  Beginning Inventory | 100  0  60 |
| Cost of Goods Available for Sale  Deduct: End Inventory | 60  0 |
| Net Cost of Goods Sold | 60 |
| Gross Margin  Deduct: Other Expenses | 40  (30) |
| Income Before Tax  Deduct: Income Tax (40%) | 10  (4) |
| Net Income | 6 |

(b)

|  |  |
| --- | --- |
| STATEMENT OF INCOME  (in thousands of $) | |
| Particulars | Amount |
| Net Sales  Cost of Goods Sold:  Purchase of Goods  Beginning Inventory | 100  0  42 |
| Cost of Goods Available for Sale  Deduct: End Inventory | 42  0 |
| Net Cost of Goods Sold | 42 |
| Gross Margin  Deduct: Other Expenses | 58  (30) |
| Income Before Tax  Deduct: Income Tax (40%) | 28  (11.2) |
| Net Income | 16.8 |

(3)

If the entire purchase was made in year 2, then we can see that the entire stock was sold in year 1 as well as year 2, resulting in equal amount of earnings for FIFO and LIFO as the end inventory in both the cases will be zero.