Reading 34

ANALYSIS OF INVENTORIES

1. (C) lower gross profit compared to last-in first-out.

   Explanation

   If prices are decreasing, FIFO assumes the higher-cost earliest purchases are the first items sold. This results in higher COGS, lower inventory, and lower gross profit compared to LIFO.

   (Module 34.2, LOS 34.b)

2. (A) FIFO inventory and LIFO cost of goods sold.

   Explanation

   Whether prices are increasing or decreasing, LIFO cost of goods sold and FIFO inventory are preferred because they are the closest estimates of current costs.

   (Module 34.2, LOS 34.b)

3. (B) prospectively, with the carrying value as the first LIFO layer.

   Explanation

   Changing the inventory cost flow assumption to LIFO is an exception to the retrospective application of changes in accounting principle. This change is applied prospectively, with the carrying value of inventory on the date of the change as the first LIFO layer.

   (Module 34.3, LOS 34.c)

4. (C) IFRS, but not U.S. GAAP.

   Explanation

   Reversals of inventory writedowns are permitted under IFRS but not under U.S. GAAP. If an IFRS reporting firm reverses an inventory writedown, the firm is required to discuss the circumstances of the reversal.

   (Module 34.3, LOS 34.c)

5. (A) higher cost of sales, lower income, higher cash flows, and lower inventory.

   Explanation

   In periods of rising prices and stable or increasing inventory quantities, the LIFO method will result in higher cost of sales, lower taxes, lower net income, lower inventory balances, lower working capital, and higher cash flows.

   (Module 34.2, LOS 34.b)

6. (B) $ 50,000 write-down No

Explanation

Inventories are valued on the balance sheet at the lower of cost or net realizable value. Net realizable value is equal to $3,150,000 ($3,500,000 selling price – $ 300,000 completion costs – $50,000 disposal costs). Since the original cost of $3,200,000 exceeds the net realizable value of $3,150,000, a $50,000 write-down is necessary. An inventory write down has no impact on the quick ratio since inventory is excluded from both the numerator and denominator of the quick ratio.

(Module 34.1, LOS 34.a)

7. (B) market price minus selling costs minus normal profit margin.

Explanation

When inventory is written down to market, the replacement cost of the inventory is its market value, but the "market value" must fall between net realizable value (NRV) and NRV less normal profit margin. NRV is the market price of the inventory less selling costs. Therefore, the minimum value is the market price minus selling costs minus normal profit margin.

(Module 34.1, LOS 34.a)

8. (C) $550,000; $525,000

Explanation

Lower of cost or NRV is $550,000. Using lower of cost or market, the replacement cost of $ 525,000 would be used because it is below NRV and equal to the NRV less the normal profit margin.

(Module 34.1, LOS 34.a)

9. (B) LIFO because it allocates current prices to cost of good sold (COGS) and provides a better measure of current income.

Explanation

LIFO is the most informative inventory accounting method for income statement purposes in periods of rising prices and stable or growing inventories. It allocates the most recent purchase prices to COGS, and thus provides a better measure of current income and future profitability.

(Module 34.2, LOS 34.b)

10. (C) lower gross profit compared to first-in first-out.

Explanation

In an environment of increasing prices, LIFO results in higher COGS, lower inventory value, and lower gross profit compared to FIFO.

(Module 34.2, LOS 34.b)

11. (B) disclose the carrying value of the pledged inventories.

Explanation

Carrying value of inventories pledged as collateral is one of the required disclosures under both IFRS and U.S. GAAP.

(Module 34.3, LOS 34.c)

12. (C) the same for both LIFO and FIFO.

Explanation

Providing beginning inventory is zero and purchase prices are constant over the period, then FIFO, LIFO, and average cost pricing will all generate the same value for ending inventory and cost of goods sold (COGS). If beginning inventory is introduced ending inventory and COGS will only be the same under the three methods if the opening inventory had been purchased at the same price as purchases in the current period and purchase prices are constant.

(Module 34.2, LOS 34.b)

13. (C) assets will be lower if it uses LIFO than if it uses FIFO.

Explanation

In an inflationary period, assets will be lower under LIFO since the last, higher priced items are charged to the income statement.

(Module 34.2, LOS 34.b)

14. (B) an increase.

Explanation

Total asset turnover is revenue divided by total assets. Writing down inventory to NRV decreases total assets and has no effect on revenue. As a result, total asset turnover increases.

(Module 34.1, LOS 34.a)

15. (A) prospectively, and explain the reasons for the change in the financial statement disclosures.

Explanation

Under U.S. GAAP, a change to LIFO from another inventory cost method is an exception to the requirement of retrospective application of changes in an accounting principle. Instead of restating prior years' data, the firm uses the carrying value of inventory at the time of the change as the first LIFO layer. U.S. GAAP requires a company that is changing its inventory cost assumption to explain, in its financial statement disclosures, why the new method is preferable to the old method.

(Module 34.3, LOS 34.c)

16. (A) **FIFO firms will have greater stockholder's equity than LIFO firms.**

Explanation

The FIFO method of inventory accounting assigns the cost of the earliest units acquired to goods transferred out and the cost of most recent acquisitions to ending inventory. When prices are rising, the cheaper goods in beginning inventory reflecting earlier purchases are assigned to COGS (hence, higher income and higher shareholder's equity through retained earnings.) In periods of rising prices and inventory levels (all else constant), FIFO firms have lower debt to equity ratios than LIFO firms because stockholder's equity is higher and debt is unaffected. LIFO firms have lower gross profit margins because the more expensive last purchases are assigned to COGS, decreasing the numerator.

(Module 34.2, LOS 34.b)

17. (B) **Write down inventory by €30,000 on December 31, 20X8 and write up inventory by € 30,000 on January 31, 20X9.**

Explanation

IFRS rules require inventory to be valued at the lower of cost or net realizable value (NRV). NRV is calculated as estimated sales price less estimated selling costs. At December 31, 20X8, NRV = €740,000 – €50,000 = €690,000. Since cost is €720,000, then the lower of cost or NRV is €690,000 and a €30,000 writedown is required.

At January 31, 20X9, NRV = €810,000 – €50,000 = €760,000. Under IFRS, when inventory recovers in value after being written down, it may be "written up" and a gain recognized in the income statement. The amount of such gain, however, is limited to the amount previously recognized as a loss. Under IFRS it is not permissible to report inventory on the balance sheet at an amount that exceeds original cost, except in the case of some agricultural and mineral products. Since cost is €720,000, the lower of cost of NRV is €720,000.

(Module 34.1, LOS 34.a)

18. (C) **LIFO because during periods of decreasing prices, COGS will be lower, resulting in a higher gross profit.**

Explanation

In periods of falling prices, LIFO results in lower COGS, and therefore higher gross profit than FIFO, because LIFO assumes the most recently purchased (lower cost) goods are sold first.

(Module 34.2, LOS 34.b)

19. (B) **lower ROA in the current period and higher ROA in later periods.**

Explanation

Writing down inventory to net realizable value decreases both net income and total assets in the period of the write-down. Because net income is most likely less than assets, the result in the period is a decrease in ROA. In later periods, lower-valued inventory will decrease COGS and increase net income. Combined with a lower value of total assets, this will increase ROA.

(Module 34.1, LOS 34.a)

20. (B) **Increase in raw-materials and work-in-progress inventory and corresponding decline in finished goods inventory over the last two years.**

Explanation

An increase in raw materials and/or work-in-process inventory is likely an indication of an expected increase in demand. Conversely, an increase in finished goods inventory, while raw materials and work-in-process are decreasing, may be an indication of decreasing demand. Finished goods inventory that is growing faster than sales may be an indication of declining demand.

(Module 34.3, LOS 34.c)

21. (B) **$ 2 million under IFRS and $1 million under U.S. GAAP.**

Explanation

Under IFRS, a firm that has written down inventory to net realizable value may record any subsequent reversal (limited to the original writedown amount) as a gain on the income statement. Under U.S. GAAP, reversals of inventory writedowns are not permitted.

(Module 34.1, LOS 34.a)

22. (B) **Increase.**

Explanation

A write-down of inventory to net realizable value is typically recognized under U.S. GAAP as an increase in cost of goods sold in the period of the write-down. Consider the inventory equation:

ending inventory = beginning inventory + purchases – cost of goods sold

A write-down to NRV decreases ending inventory, with no effect on beginning inventory or purchases. For the inventory equation to hold, cost of goods sold must increase.

(Module 34.1, LOS 34.a)

23. (A) **higher inventory balances and higher working capital.**

Explanation

In periods of decreasing prices, LIFO results in lower COGS, higher taxes, higher net income, higher inventory balances, higher working capital, and lower cash flows compared to FIFO.

(Module 34.2, LOS 34.b)

24. (B) **may be revalued up to €10 million.**

Explanation

Under IFRS, inventory is measured at the lower of cost or net realizable value. Inventory that has been written down can later be revalued upward if its net realizable value recovers, but only to the extent that reverses the writedown (i.e., no higher than cost). Under U.S. GAAP, inventory that has been written down may not be revalued upward.

(Module 34.1, LOS 34.a)

25. (A) no change.

Explanation

The quick ratio is current assets other than inventories divided by current liabilities. Neither the numerator nor the denominator is affected by an inventory write-down.

(Module 34.1, LOS 34.a)

26. (B) Last-in, first-out Average cost

Explanation

LIFO will result in the lowest pre-tax financial income and FIFO will result in the highest pre-tax income. Average cost pre-tax financial income will fall in the middle. LIFO is allowed under U.S. GAAP but is not allowed under IFRS. Thus, Lincoln should choose LIFO and Continental should choose average cost in order to minimize pre-tax financial income.

(Module 34.2, LOS 34.b)

27. (C) Work-in-process inventory increasing faster than finished goods inventory.

Explanation

Work-in-process inventory increasing faster than finished goods inventory is a likely indicator that a firm expects demand to increase, which should increase future revenues and earnings. Finished goods inventory increasing faster than sales or work-in-process inventory may indicate that demand is decreasing. Analysts should refer to sources such as management's commentary to further examine the reasons for an increase in finished goods inventory.

(Module 34.3, LOS 34.c)

28. (C) IFRS permits reversals of inventory writedowns but the firm must disclose the circumstances of the reversal in its financial statements.

Explanation

IFRS requires a firm that reverses an inventory writedown to discuss the circumstances that led to the reversal. Both IFRS and U.S. GAAP require firms to disclose the inventory cost flow method they use. While a change to LIFO from another inventory cost method is a change in accounting principle, under U.S. GAAP this change is not applied retrospectively. The carrying value of inventory is considered to be the first LIFO layer.

(Module 34.3, LOS 34.c)

29. (B) cost of goods sold.

Explanation

Under FIFO, Snow Blower will report lower cost of goods sold because the first items bought are assumed to be the units sold, and these have the lowest cost in a rising price environment. Net income is higher under FIFO in an increasing price environment because lower cost of goods sold results in higher income. Ending inventory is higher under FIFO in an increasing price environment.

(Module 34.2, LOS 34.b)

30. (C) $ 74.

Explanation

Under U.S. GAAP, a LIFO firm values inventory at the lower of cost or market. Market is equal to the replacement cost subject to replacement cost being within a specific range. The upper bound is net realizable value (NRV), which is equal to selling price ($ 80) less selling costs ($2) for an NRV of $78. The lower bound is NRV ($78) less normal profit (5% of selling price = $4) for a net amount of $74. Since replacement cost ($73) is less than NRV minus normal profit ($74), then market equals NRV minus normal profit ($74). As well, we have to use the lower of cost ($90) or market ($74) principle so the recorders should be recorded at the lower amount of $74.

(Module 34.1, LOS 34.a)

31. (C) LIFO.

Explanation

When prices are declining and LIFO is used the COGS is smaller than if FIFO is used leading to a larger net income.

(Module 34.2, LOS 34.b)

32. (C) LIFO cost of sales > FIFO cost of sales, therefore LIFO net income < FIFO net income.

Explanation

With rising prices and using the LIFO inventory cost method, the most expensive units go to cost of sales, resulting in lower net income compared to the FIFO inventory cost method.

(Module 34.2, LOS 34.b)

33. (B) last-in first-out (LIFO).

Explanation

In an increasing price environment, inventory values reported under LIFO are lower than the values reported under FIFO, and the values that result from weighted average cost are between the LIFO and FIFO values. Thus, the value of inventory using weighted average cost is higher than inventory using LIFO. The value of inventory using specific identification depends on which particular items from inventory are sold, and thus can be higher or lower than the inventory values that result from the other methods.

(Module 34.2, LOS 34.b)