CHAPTER 21

INVENTORIES

1. (B) 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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

2. (C) $382,500.

Explanation

Under FIFO, cost of goods sold is the value of the first units purchased. The 35 units sold consist of the 20 units in beginning inventory, the 10 units purchased in April, and 5 of the units purchased in July. COGS = $200,000 + $120,000 + (5 x $12,500) = $382,500. Using FIFO, ending inventory and COGS are not affected by the choice of a periodic or perpetual inventory system.

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

3. (B) LIFO COGS > Weighted Average COGS > FIFO COGS.

Explanation

During periods of rising prices, the last units purchased are more expensive than the existing units. Under LIFO, the cost of the last units purchased is assigned to cost of goods sold. This higher cost of goods sold results in lower income, as compared to the FIFO method. As the name suggests, the weighted average method is based on mathematical averages rather than timing of purchase/use. Thus, cost of goods sold using this method falls between that of LIFO and FIFO.

(Study Session 7, Module 21.5, LOS 21.1)

Related Material

SchweserNotes - Book 2

4. (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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

5. (A) **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.

(Study Session 7, Module 21.4, LOS 21.i)

Related Material

SchweserNotes - Book 2

6. (B) **cost of sales near current cost and inventory below replacement cost.**

Explanation

LIFO assumes the most recently purchased items are the first items sold. In an increasing or decreasing price environment, LIFO results in cost of sales that are nearer to current costs compared to other inventory cost methods, and inventory values based on outdated prices (below replacement cost if prices are increasing, above replacement cost if prices are decreasing).

(Study Session 7, Module 21.1, LOS 21.b)

Related Material

SchweserNotes - Book 2

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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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

8. (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.

(Study Session 7, Module 21.4, LOS 21.h)

Related Material

SchweserNotes - Book 2

9. (A) **$4,824.**

Explanation

Using FIFO, the 806 units sold are assumed to consist of the 699 units in beginning inventory and another 806 - 699 = 107 units that were purchased during the period. Because all of beginning inventory units are assumed to have been sold, the 699 + 710 - 806 = 603 items left in inventory are all assumed to be units that were purchased during the period. Ending inventory value = 603 x $8 = $4,824.

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

10. (C) **$3,850.**

Explanation

Purchased 50 + 60 + 70 = 180 units. Sold 25 + 30 + 45 = 100.

Ending inventory = 180 - 100 = 80 of the first units purchased.

(50 units)($50/unit) + (30 units)($45/unit) = $2,500 + $1,350 = $3,850.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

11. (A) No No

Explanation

While the LIFO firm will typically report lower average inventory (higher inventory turnover), Intrepid cannot be a LIFO firm because LIFO is not permitted under !FRS. An upward revaluation of inventory would lower the inventory turnover ratio; however, United cannot revalue its inventory upward because it follows U.S. GAAP. U.S. GAAP prohibits upward inventory revaluations (except in very limited circumstances which are beyond the scope of the Level I exam).

(Study Session 7, Module 21.5, LOS 21.1)

Related Material

SchweserNotes - Book 2

12. (C) LIFO or weighted average cost, but not FIFO.

Explanation

The LIFO and weighted average cost methods can provide different values for inventory, cost of sales, and gross profit depending on whether the firm uses a periodic or perpetual inventory system. FIFO produces the same values from either a periodic or perpetual inventory system.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

13. (C) Allocation of fixed production overhead.

Explanation

Assuming normal capacity levels, allocation of fixed production overhead is a product cost that is capitalized as part of inventory. Thus, this cost will not be recognized as an expense until the inventory is sold (it becomes part of COGS for that period). Administrative overhead and selling costs are period costs that must be expensed in the period incurred.

(Study Session 7, Module 21.1, LOS 21.a)

Related Material

SchweserNotes - Book 2

14. (C) $1,138,000 $255,000

Explanation

The table in the problem can be used to tabulate the cost of goods available for sale.

Date	Quantity	Unit Cost	Total Cost
Begin inv.	50 units	x $7,000	= $350,000
4/1/X6	80 units	x 7,500	= 600,000
711/X6	30 units	x 8,100	= 243,000
10/1/X6	20 units	x 8,700	= 174,000
	180 units		$1,367,000

Note that COGS and inventory under FIFO are the same under either a perpetual and periodic inventory system.

COGS = $350,000 + $600,000 + (20 x $8,100) = $1,112,000

gross profit = net sales - COGS = $2,250,000 - $1,112,000 = $1,138,000. Ending inventory under FIFO will include the most recently purchased inventory. ending inventory = $174,000 + (10 x $8,100) = $255,000.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

15. (B) **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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

16. (B) **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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

17. (C) **only for firms that use the LIFO inventory cost method.**

Explanation

Only firms that use the LIFO inventory cost method are required to disclose a LIFO reserve.

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

18. (C) **$900,000.**

Explanation

FIFO COGS = LIFO COGS - change in LIFO reserve = $1 million - $100,000 = $900,000.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

19. (A) **higher net income; higher working capital.**

Explanation

The first step is to determine the direction of prices:

Purchase	Total Cost	Units	Per-unit Cost
Begin inv.	$9,500	÷ 250	= $38
3/1/X6	14,800	+ 400	= $37
711/X6	14,850	+ 450	= $33
911/X6	15,950	+ 550	= $29

Notice that per-unit prices are falling. Under falling prices, LIFO inventory costing will result in higher net income because the recent units were cheaper than the older purchases (and beginning inventory), making the cost of goods sold lower and net income higher. Working capital will be higher because LIFO inventory is greater than FIFO inventory when prices are falling.

(Study Session 7, Module 21.5, LOS 21.1)

Related Material

SchweserNotes - Book 2

20. (C) **$810.**

Explanation

The ending LIFO reserve is $70 and the beginning LIFO reserve is $80.

FIFO COGS = LIFO COGS - (ending LIFO reserve - beginning LIFO reserve)

$800 - ($70 - $80) = $810

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

21. (A) **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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

22. (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.

For Further Reference:

(Study Session 7, Module 21.4, LOS 21.g)

CFA® Program Curriculum, Volume 3, page 275
Related Material
SchweserNotes - Book 2

23. (C) Low inventory turnover ratio.
Explanation
Low inventory turnover (high number of days in inventory) may be a sign of slow-moving or obsolete inventory, especially when coupled with low or declining revenue growth compared to the industry. Low inventory value compared to cost of goods sold, however, implies a high inventory turnover ratio. This suggests much less risk of obsolescence.
(Study Session 7, Module 21.5, LOS 21.k)
Related Material
SchweserNotes - Book 2

24. (B) $3,250.
Explanation
Purchased 50 + 60 + 70 = 180 units. Sold 25 + 30 + 45 = 100.
Ending inventory = 180 - 100 = 80 of the last units purchased.
(70 units)($40/unit) + (10 units)($45/unit) = $2,800 + $450 = $3,250.
Note that FIFO inventory is not affected by the choice of a periodic or perpetual inventory system.
(Study Session 7, Module 21.1, LOS 21.c)
Related Material
SchweserNotes - Book 2

25. (C) the difference between LIFO inventory and FIFO inventory.
Explanation
LIFO reserve is the difference between inventory under the LIFO cost method and inventory under the FIFO cost method.
(Study Session 7, Module 21.3, LOS 21.e)
Related Material
SchweserNotes - Book 2

26. (A) only use the LIFO method.
Explanation
The LIFO conformity rule in the U.S. requires firms to use LIFO for their financial statements if they use LIFO for income tax purposes.
(Study Session 7, Module 21.1, LOS 21.b)
Related Material
SchweserNotes - Book 2

27. (B) $9,549.
Explanation
Using FIFO, the 959 units sold are assumed to consist of the 709 units in beginning inventory and 959 - 709 = 250 units that were purchased during the period.
FIFO COGS = (709 units)($2/unit) + (250 units)($6/unit) = $1,418 + $1,500 = $2,918 Sales = (959 units)($13/unit) = $12,467
Gross profit = Sales - COGS

= 12,467 - 2,918 = $9,549

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

28. (C) Last in, first out (LIFO) for income statements and first in, first out (FIFO) for the balance sheet.

Explanation

LIFO allocates the most recent prices to the cost of goods sold and provides a better measure of current income. For balance sheet purposes, inventories based on FIFO are preferable since these values most closely resemble current cost and economic value.

(Study Session 7, Module 21.5, LOS 21.1)

Related Material

SchweserNotes - Book 2

29. (A) $2,878.

Explanation

Average cost per unit purchased:

40 units at $60/per unit = $2,400

50 units at $55/per unit = $2,750

60 units at $45/per unit = $2,700

Total = 150 units = $7,850

Average cost per unit = $7,850 /150 units = $52.33/unit

Purchased 40 + 50 + 60 = 150 units. Sold 25 + 30 + 40 = 95

Ending inventory = 150 - 95 = 55 units x $52.33/unit = $2,878

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

30. (C) $5,676.00.

Explanation

weighted average cost per unit = (709 units)($2/unit) + (556 units)($6/unit) = $4,754 / 1,265 units = $3.7581

weighted average COGS = ($3.7581)(959 units) = $3,604.02

Sales = (959 units)($13/unit) = $12,467

Profit = Sales - COGS - Sales Expenses

= 12,467 - 3,604.02 - 2,649

= $6,213.98

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

31. (A) **increase to 21.1%.**

Explanation

Return on total equity (net income / total equity) was $800,000 / ($2,200,000 + $1,800,000) = 20%. Under FIFO, net income increases by the increase in the LIFO reserve multiplied by (1 -tax rate). FIFO net income was $800,000 + ($600,000 - $400,000) (1 - 0.40) = $920,000. Total equity increases by the amount of accumulated FIFO profits that are added to retained earnings, which is calculated by multiplying the amount of the ending LIFO reserve by (1 - tax rate) for an increase of ($600,000) x (1 - 0.40) = $360,000. Total equity is $2,200,000 + $1,800,000 + $360,000 = $4,360,000. FIFO return on total equity is $920,000 / $4,360,000 = 21 1 %.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

32. (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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

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33. (C) **Selling cost.**

Explanation

Selling costs are expensed in the period incurred since they result in no future benefit (i.e. the inventory has been sold). Conversion costs and freight costs add value in assisting in the future sale of the related inventory. Therefore, these costs are not recognized until the inventory is ultimately sold.

(Study Session 7, Module 21.1, LOS 21.a)

Related Material

SchweserNotes - Book 2

34. (B) **most recent purchases.**

Explanation

Under the FIFO inventory valuation method, ending inventory reflects the costs of the most recently purchased items and cost of sales reflects the costs of the earliest purchases. If prices are increasing or decreasing, ending inventory is unlikely to reflect the costs of the specific units available for sale.

(Study Session 7, Module 21.1, LOS 21.b)

Related Material

SchweserNotes - Book 2

35. (B) a liability for unearned revenue.

Explanation

Sales revenue for which the product or service has yet to be delivered gives rise to a liability account, unearned revenue. This liability will be reduced as the product or service is actually delivered.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

36. (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.

(Study Session 7, Module 21.4, LOS 21.j)

Related Material

SchweserNotes – Book

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37. (B) 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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

38. (C) LIFO reserve.

Explanation

FIFO cost of goods sold equals LIFO cost of goods sold minus the change in the LIFO reserve.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

39. (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.

(Study Session 7, Module 21.4, LOS 21.i)

Related Material

SchweserNotes - Book 2

40. (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 writedown. 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.

(Study Session 7, Module 21.4, LOS 21.h)

Related Material

SchweserNotes - Book 2

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41. (C) 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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

42. (B) Increase cash by $7.

Explanation

Declining prices (negative LIFO reserve) would result in FIFO inventory being less than LIFO inventory. The balance sheet adjustment would decrease assets (inventory) by the $20 LIFO reserve. In addition, the analyst would increase cash by $7 ($20 LIFO reserve x 35% tax rate). To bring the accounting equation into balance, the analyst would decrease shareholders' equity by $13 [$20 LIFO reserve x (1 - 35% tax rate)].

Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

43. (B) Manufacturing overhead.

Explanation

Product costs that are capitalized to inventory include purchase cost, conversion or manufacturing costs (including labor and overhead), and other costs to bring inventory to its present state and location. Period costs recognized as expenses when incurred include abnormal waste, storage costs not required for production, selling costs, and administrative overhead.

(Study Session 7, Module 21.1, LOS 21.a)

Related Material

SchweserNotes - Book 2

44. (C) IFRS permits reversals of inventory writedowns but the firm must disclose the ISI 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.

(Study Session 7, Module 21.4, LOS 21.i)

Related Material

SchweserNotes - Book 2

45. (A) 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.

(Study Session 7, Module 21.4, LOS 21.i)

Related Material

SchweserNotes - Book 2

46. (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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

47. (C) $19,055.

Explanation

For the February sale, the last-in units cost $43. For the April sale, the last-in units cost $45. For the September sale, the last-in units cost $48.

Cost of goods sold is 215 x $43 + 90 x $45 + 120 x $48 = $19,055.

For Further Reference:

(Study Session 7, Module 21.1, LOS 21.c)

CFA® Program Curriculum, Volume 3, page 258

Related Material

SchweserNotes - Book 2

48. (A) adding the LIFO x (1-tax rate) reserve to current assets.

Explanation

FIFO inventory = LIFO inventory + LIFO reserve, and inventory is included in current assets, the numerator in the current ratio.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

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49. (C) $5,250.

Explanation

Weighted average = cost of goods available / total units available.

[(699 x 5) + (710 x 8)] / (699 + 710) = 6.51171

COGS = Units sold x Weighted average cost = 806 x 6.51171 = $5,248.44.

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

50. (A) FIFO are preferable to those based on LIFO, as they more closely reflect current costs.

Explanation

The inventories based on FIFO are preferable to those presented under LIFO or average cost for balance sheet purposes. Under FIFO, the older inventories are taken out first, and the ending inventory balance consists of the recent purchases and thus most closely reflect the current (economic) value.

(Study Session 7, Module 21.5, LOS 21.1)

Related Material

SchweserNotes - Book 2

51. (C) **Total asset turnover.**

Explanation

Total asset turnover should improve, as the numerator (sales) would not be affected while the denominator (total assets) would be lower. Profitability ratios and the debt-to-equity ratio would be worse due to lower profits and lower equity due to the inventory writedown.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

52. (A) **$2,830.**

Explanation

Weighted average cost = [559($1) + 785($5)] / (559 + 785) = $3.3363

COGS = Units sold x weighted average cost = 848 x 3.3363 = $2,829.19

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

53. (B) **$4,300.**

Explanation

For a firm that uses the FIFO inventory cost method, cost of sales and ending inventory are unaffected by the choice between periodic and perpetual inventory systems.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

54. (C) **$2,400.**

Explanation

If the firm had used FIFO inventory cost, tax liability would be higher by (LIFO reserve x tax rate) and retained earnings would be higher by [LIFO reserve x (1 - tax rate)].

(LIFO reserve)(1 - t) = $4,000(1 - 0.4) = $2,400.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

55. (A) **$3,840,000.**

Explanation

With sales of $5.5 million and a gross margin of 0.32, COGS on a LIFO basis is $5.5 million x (1 - 0.32) = $3.74 million. To convert COGS to a FIFO basis,

subtract the change in LIFO reserve during the year: $3,740,000 - ($75,000 - $175,000) = $3,840,000.

For Further Reference:

(Study Session 7, Module 21.3, LOS 21.f)

CFA® Program Curriculum, Volume 3, page 265

Related Material

SchweserNotes - Book 2

56. (B) inventory turnover ratio.

Explanation

The inventory turnover ratio is cost of sales / average inventory. Compared to FIFO, LIFO results in higher cost of sales and lower average inventory when prices are increasing, and therefore results in a higher inventory turnover ratio. Because cost of sales is higher with LIFO, gross profit margin is lower. The quick ratio is unaffected by the inventory cost assumption.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

57. (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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

58. (A) 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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

59. (A) higher earnings.

Explanation

Since older layers of inventory that are liquidated were purchased at lower prices, the cost of goods sold will be lower and earnings will be higher.

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

60. (C) **the same for both LIFO and FIFO.**

Explanation

During stable prices inventory levels are the same for both LIFO and FIFO.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

61. (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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

62. (B) **purchases are less than goods sold.**

Explanation

For LIFO companies, when more goods are sold than are purchased during a period, the goods held in opening inventory are in included in COGS. This will result in LIFO liquidation.

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

63. (C) **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.

For Further Reference:

(Study Session 7, Module 21.4, LOS 21.i)

CFA® Program Curriculum, Volume 3, page 282

Related Material

SchweserNotes - Book 2

64. (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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

65. (C) **$20,250.**

Explanation

FIFO COGS = LIFO COGS - change in LIFO reserve. Therefore, $24,000 - ($6,000 - 2,250) = $20,250.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

66. (A) **$650 $750 $677**

Explanation

Sales = (15 * 60) + (35 * 45) + (85 * 35) = 5,450

$COGS_{FIFO}$ = (20 * 50) + (35 * 40) + (80 * 30) = 4,800

GM_{FIFO}: $5,450 - 4,800 = $650

$COGS_{LIFO}$ = (15 * 50) + (35 * 40) + (85 * 30) = 4,700

GM_{LIFO}: $5,450 - $4,700 = $750

$COGS_{Average}$ = (20 * 50) + (35 * 40) + (85 * 30) = 4,950

4,950*135 / 140 = 4,773.21

$GM_{Cost\ Average}$: $5,450 - $4,773.21 = $676.79

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

67. (A) **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.

(Study Session 7, Module 21.4, LOS 21.j)

Related Material

SchweserNotes - Book 2

68. (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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

69. (B) **$13,500.**

Explanation

FIFO COGS = LIFO COGS - change in LIFO reserve

= $16,000 - ($4,000 - $1,500) = $13,500.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

70. (C) **$1,225.**

Explanation

Ending inventory equals 20 + 10 + 35 + 20 - 60 = 25 of the first units purchased equals:

(20 units)($50/unit) + (5 units)($45/unit) = $1,000 + $225 = $1,225

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

71. (A) **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.

(Study Session 7, Module 21.2, LOS 21.d) ‘

Related Material

SchweserNotes - Book 2

72. (A) **$1,575.**

Explanation

Ending inventory equals 20 + 10 + 35 + 20 - 60 = 25 of last units purchased in inventory.

(20 units)($65/unit) + (5 units)($55/unit) = $1,300 + $275 = $1,575

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

73. (C) $4,136.

Explanation

Because unit sales were less than beginning inventory, under FIFO all the units sold are assumed to have been from beginning inventory. Units remaining in inventory = 1,059 + 785 -848 = 996, which consist of the 785 units purchased during the period and 996 - 785 = 211 units remaining from beginning inventory. Ending inventory = 211 x $1.00 + 785 x $5.00 = $4,136.

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

74. (B) stability of a firm's inventory levels.

Explanation

Neither metric is directly relevant in evaluating the stability of a firm's inventory levels. Determining stability would presumably require other information such as purchase and sales levels, for example. The inventory turnover ratio and the number of days in inventory can be used to evaluate the relative age of a firm's inventory as well as the effectiveness of a firm's inventory management.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

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75. (A) LIFO inventory + LIFO reserve.

Explanation

To convert LIFO inventory balances to a FIFO basis, simply add the LIFO reserve to LIFO inventory.

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

76. (A) cash.

Explanation

To adjust a LIFO firm's financial statements to a FIFO basis including tax effects, an analyst should increase inventory by the LIFO reserve, decrease cash by (LIFO reserve x tax rate), and increase retained earnings by [LIFO reserve x (1 - tax rate)].

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

77. (B) last in, first out.

Explanation

Under the LIFO or weighted average cost inventory valuation methods, perpetual and periodic inventory accounting systems can result in different values for cost of sales, ending inventory, and gross profit. Under FIFO or specific identification, these values are the same for a periodic or perpetual system.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

78. (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 writedown.

(Study Session 7, Module 21.4, LOS 21.h)

Related Material

SchweserNotes - Book 2

79. (B) LIFO reserve.

Explanation

FIFO inventory equals LIFO inventory plus the LIFO reserve.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

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80. (A) $3,600 $2,900

Explanation

Average cost = cost of goods available / total units available

= (709 x $2 + 556 x $6) / (709 + 556) = $3.7581

COGS using average cost = Units sold x average cost = 959 x $3.7581 = $3,604.02

FIFO COGS = (709 x $2) + [(959 - 709) x $6] = $2,918.00

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

81. (B) 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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes – Book 2

82. (B) $77,000.

Explanation

COGS = 80,000 - (11,000 - 8,000) = 77,000.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

83. (C) Increase.

Explanation

In an increasing price environment, a LIFO liquidation increases gross profit because COGS includes older inventory layers of units at a cost lower than their current (replacement) cost. This increase is unsustainable because a firm can only sell from inventory until it is exhausted

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

84. (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.

(Study Session 7, Module 21.4, LOS 21.h)

Related Material

SchweserNotes - Book 2

85. (B) $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.

(Study Session 7, Module 21.4, LOS 21.g)

Related Material

SchweserNotes - Book 2

86. (B) $5,250.

Explanation

Average cost of units available for sale = (699 x $5 + 710 x $8) / (699 + 710) = $6.51

Cost of goods sold = $6.51 x 806 = $5,247

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2

87. (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 pretax income. Average cost pre-tax financial income will fall in the middle. LIFO is allowed under U.S. GAAP but is not allowed under !FRS. Thus, Lincoln should choose LIFO and Continental should choose average cost in order to minimize pre-tax financial income.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

88. (B) $3,760.

Explanation

With a perpetual inventory system, units purchased and sold are recorded in inventory in the order that the purchases and sales occur. Cost of goods sold for the July 12 sale uses 4 of the units purchased on July 8: 4 x ($2,600 / 5) = $2,080. Cost of goods sold for the July 21 sale uses 3 of the units purchased on July 15: 3 x ($2,800 / 5) = $1,680. COGS = $2,080 + $1,680 = $3,760.

(Study Session 7, Module 21.1, LOS 21.c)

Related Material

SchweserNotes - Book 2

89. (A) $1,500.

Explanation

Adjustment to retained earnings = LIFO reserve (1 - t) = $2,500(1 - 0.4) = $1,500.

(Study Session 7, Module 21.3, LOS 21.f)

Related Material

SchweserNotes - Book 2

90. (A) 4.06

Explanation

With FIFO instead of LIFO:

- Inventory would be higher by $900,000, the amount of the ending LIFO reserve.
- Cumulative pretax income would also be higher by $900,000, so taxes paid would be higher by 0.40($900,000) = $360,000. Therefore cash would be lower by $360,000.

- Cumulative retained earnings would be higher by (1 - 0.40)($900,000) = $540,000.

So assets under FIFO would be $11,800,000 + $900,000 - $360,000 = $12,340,000 and equity would be $1,000,000 + $1,500,000 + $540,000 = $3,040,000. The assets-to-equity ratio would be $12,340,000 / $3,040,000 = 4.06.

(Study Session 7, Module 21.5, LOS 21.k)

Related Material

SchweserNotes - Book 2

91. (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.

(Study Session 7, Module 21.2, LOS 21.d)

Related Material

SchweserNotes - Book 2

92. (C) inventory quantity decreases during a reporting period.

Explanation

LIFO liquidation occurs when the quantity of inventory decreases during a reporting period. In an increasing price environment this results in older, lower costs being included in COGS for the period.

(Study Session 7, Module 21.3, LOS 21.e)

Related Material

SchweserNotes - Book 2

93. (B) $3,015.

Explanation

There are (699 + 710 - 806) = 603 items left in inventory. Ending inventory = 603 x $5 = $3,015.

(Study Session 7, Module 21.2, LOS 21.c)

Related Material

SchweserNotes - Book 2