True-False

1 Periodic inventory systems provide a greater degree of management control over inventory.

2 In the perpetual inventory system inventory losses must be recoded in the accounts.

3 In a periodic inventory system the ending inventory must be determined by physical count.

4 A periodic system of inventory is used when inventory volumes are low and per unit costs are high.

5 Inventory shipped on consignment is owned by the consignee.

6 Inventory carrying cost includes storage costs.

7 Under absorption costing all costs are inventoried.

8 Variable costing is an acceptable costing method for GAAP.

9 Analysts must be aware that with the use of absorption costing, as inventory absorbs more fixed costs, reported income tends to decrease.

10 Beginning inventory plus inventory purchases equals cost of goods sold.

11 GAAP does not require the cost flow assumption to conform to the actual physical flow of the goods.

12 FIFO matches current costs with current revenues.

13 The input cost changes that occur after the purchase of inventory items in a current cost accounting system are recognized as unrealized holding gain.

14 Under GAAP, current cost accounting may or may not be used at the discretion of management.

15 The primary difference b etween FIFO and LIFO is that each method makes a different choice regarding which element is shown at the out of date cost.

16 The formula to convert the cost of goods sold LIFO to an estimate of the cost of goods sold FIFO is cost of goods sold LIFO – increase in LIFO reserve = cost of goods sold FIFO.

17 Firms that use LIFO must disclose the dollar magnitude of the difference between LIFO and FIFO cost.

18 As a firm liquidates old LIFO layers of inventory, the lower costs of the LIFO layers are matched against current sales dollars resulting in a profit margin that is lower than normal.

19 Current ratio distortion under LIFO inventory costing may be adjusted by subtracting the LIFO reserve from current assets.

20 U. S. tax rules specify that if LIFO is used for tax purposes, the external financial statements must also use LIFO.

21 During periods of rising inventory costs, LIFO cost of goods sold is understated because of the inventory holding gains that have occurred during the period.

22 An overstatement of ending inventory leads to an overstatement of cost of goods sold.

23 In the lower of cost or market determination, the ceiling is the inventory's net realizable value.

24 The use of the lower of cost or market method to value inventory for reporting purposes employs the accounting principle of matching.

25 A price index is a ratio that compares prices during the current year with prices during a base period.

26 The time at which initial adoption of dollar-value LIFO takes place is called the past period.

Multiple-Choice Questions

Select the best answer from those provided.

27 In a periodic inventory system the ending inventory and cost of goods sold must be determined by

a. external auditors.
b. physical count.
c. a certification of inventory.
d. reference to a running inventory balance.

28 A periodic system of inventory

a. reduces record keeping.
b. increases record keeping.
c. increases the cost of maintaining inventory.
d. eliminates the need for a physical count.

29 The use of perpetual inventory systems is preferred where a

a. large number of expensive inventory units exist.
b. small number of expensive inventory units exist.
c. large number of inexpensive inventory units exist.
d. small number of inexpensive inventory units exist.

30 Goods held on consignment are included in the inventory of

a. the consignor.
b. the consignee.
c. both the consignor and the consignee.
d. neither the consignor nor the consignee.

31 Manufacturing costs not considered to be closely associated with production are called

a. period cost.
b. product costs.
c. absorption costs.
d. variable costs.

32 Variable costing is also referred to as
a. direct costing.
b. full costing.
c. variable costing.
d. fixed costing.

33 Using absorption costing
a. only fixed costs are inventoried.
b. only variable costs are inventoried.
c. all production costs are inventoried.
d. fixed costs are expensed as incurred.

34 Analysts must be aware that with the use of absorption costing, as inventory absorbs more fixed costs, reported income tends to
a. increase.
b. decrease.
c. remain the same.
d. become highly volatile.

35 Analysts must recognize that the use of the specific identification method to value inventory has a serious deficiency because it
a. allows manipulation of income.
b. allows manipulation of period costs.
c. allows manipulation of selling expenses.
d. allows manipulation of administrative expenses.

36 Goods available for sale needs to be allocated between
a. beginning inventory and inventory purchases.
b. beginning inventory and ending inventory.
c. ending inventory and cost of goods sold.
d. inventory purchases and cost of goods sold.

37 Financial analysts recognize that the deficiency of the FIFO cost flow assumption is the failure to
a. match current costs with current revenues.
b. match current costs with oldest revenues.
c. match oldest costs with current revenues.
d. match oldest costs with oldest revenues.

38 The input cost changes that occur after the purchase of inventory items in a current cost accounting system are recognized as
a. realized gains and losses.
b. unrealized holding gains and losses.
c. extraordinary gains and losses.
d. costs of goods sold.

Table 9-1
The following information pertains to the Fan Company's inventory item B1008:

March	1	Inventory Balance	400	units	@ $3.10
	5	Purchase	1,400	units	@ $3.20
	14	Purchase	280	units	@ $3.25
	31	Inventory	520	units	

39 Refer to Table 9-1. In a periodic inventory system, the ending LIFO inventory is
a. $1,624.
b. $1,655.
c. $1,678.
d. d 733.

40 Refer to Table 9-1. In a periodic inventory system, the LIFO cost of goods sold is
a. $4,952.
b. $4,967.
c. $4,993.
d. $5,006.

41 Refer to Table 9-1. In a periodic inventory system, the FIFO cost of goods sold is
a. $4,952.
b. $4,967.
c. $4,993.
d. $5,006.

42 Refer to Table 9-1. In a periodic inventory system, the ending FIFO inventory is
a. $1,624.
b. $1,655.
c. $1,678.
d. $1,733.

43 The Wheat Company has used the LIFO method for inventory valuation since

the start of business 15 years ago. The current year ending inventory is $375,000. If the FIFO method of inventory had been used, the inventory would be $450,000. If Wheat Company had used the FIFO inventory method, income before income taxes would have been

a. $75,000 higher over the 15 year period.
b. $75,000 lower over the 15 year period.
c. $75,000 higher in the current year.
d. $75,000 lower in the current year.

44 The LIFO reserve disclosure is required because LIFO inventory costs are

a. higher than FIFO inventory costs.
b. lower than FIFO inventory costs.
c. equal to FIFO inventory costs.
d. usually of no consequence.

45 The conversion of a LIFO inventory to approximate the inventory at FIFO is accomplished through application of which one of the following formulas?

a. FIFO inventory = LIFO inventory x LIFO reserve
b. FIFO inventory = LIFO inventory / LIFO reserve
c. FIFO inventory = LIFO inventory – LIFO reserve
d. FIFO inventory = LIFO inventory + LIFO reserve

46 The formula to convert the cost of goods sold LIFO to an estimate of the cost of goods sold FIFO is

a. cost of goods sold LIFO + increase in LIFO reserve = cost of goods sold FIFO.
b. cost of goods sold LIFO – increase in LIFO reserve = cost of goods sold FIFO.
c. cost of goods sold LIFO – decrease in LIFO reserve = cost of goods sold FIFO.
d. cost of goods sold LIFO + beginning LIFO reserve = cost of goods sold FIFO.

47 The Xano Company reported merchandise inventory at LIFO of $450,000 on the year-end financial statements. The company also reported a LIFO reserve of $34,000. An estimate of the inventory balance if the inventory had been reported using the FIFO assumption is

a. $382,000.
b. $416,000.
c. $461,000.
d. $484,000.

48 The Skone Corporation reported at the end of the year a LIFO reserve of $25,000. The beginning LIFO reserve was $20,000. The cost of goods sold was $197,500 under LIFO. The cost of goods sold under FIFO should be

a. $192,500.
b. $197,500.
c. $202,500.
d. $222,500.

49 The Mick Company reported a LIFO cost of goods sold for the year of $100,000. The LIFO reserve decreased by $30,000 for the year. An estimate of the cost of goods sold under FIFO is

a. $ 70,000.
b. $ 130,000.
c. $ 160,000.
d. $ 200,000.

50 As a firm liquidates old LIFO layers of inventory, the lower costs of the LIFO layers are matched against current sales dollars resulting in a profit margin that is

a. inflated.
b. deflated.
c. lower than normal.
d. always the same as under FIFO.

51 Current ratio distortion under LIFO inventory costing may be adjusted by

a. adding the LIFO reserve to current assets.
b. subtracting the LIFO reserve from current assets.
c. adding the LIFO reserve to current liabilities.
d. subtracting the LIFO reserve from current liabilities.

52 Inventory turnover distortion under LIFO inventory costing may be adjusted by

a. adding the LIFO reserve amounts to cost of goods sold and adjusting beginning and ending inventory for LIFO liquidation profits whenever LIFO dipping occurs.
b. subtracting the LIFO reserve amounts from cost of goods sold and adjusting beginning and ending inventory for LIFO liquidation profits whenever LIFO dipping occurs.
c. adding the LIFO reserve amounts to beginning and ending inventory and adjusting cost of goods sold for LIFO liquidation profits whenever LIFO dipping occurs.
d. subtracting the LIFO reserve amounts from beginning and ending inventory and adjusting cost of goods sold for LIFO liquidation profits whenever LIFO dipping occurs.

53 The LIFO conformity rule states that

a. if LIFO is used for tax purposes, the external financial statements must also use LIFO.

b. if FIFO is used for tax purposes, the external financial statements must also use FIFO.
c. if LIFO is used for tax purposes, the external financial statements must also use FIFO.
d. if FIFO is used for tax purposes, the external financial statements must also use LIFO.

54 Firms that use FIFO inventory cost assumptions always include some realized holding gains in reported income in periods of

a. level prices.
b. deflation.
c. falling prices.
d. rising prices.

55 The size of the divergence between FIFO cost of goods sold and replacement cost of goods sold depends on the rapidity of the inventory turnover and the

a. change in accounts receivable turnover.
b. divergence of total asset turnover from previous periods.
c. severity of input cost change.
d. rapidity of fixed asset turnover.

Table 56-67

The World Company's financial statements for 2006 and 2007 contain the following errors:

	2007	2006
Ending Inventory	$6,000 overstated	$16,000 overstated
Insurance Expense	$4,000 understated	$12,000 overstated

56 Refer to Table 56-67. If the proper correcting entries were made at the end of 2006, how much will 2007 income before taxes be overstated or understated?

a. $ 2,000 understated
b. $ 2,000 overstated
c. $ 10,000 understated
d. $ 10,000 overstated

57 Refer to Table 56-67. If no correcting entries were made at the end of 2006, by how much will retained earnings be overstated or understated at the end of 2007? Ignore tax consequences.

a. $ 2,000 understated
b. $ 2,000 overstated
c. $ 10,000 understated
d. $ 10,000 overstated

58 The use of the lower of cost or market method to value inventory for reporting purposes is a departure from the accounting principle of

a. going concern.
b. conservatism.
c. matching.
d. historical cost.

59 TAD, Inc. uses the lower of cost or market method to value inventory. If the inventory value is replacement cost, which one of the following statements is true?

a. Historical cost is less than replacement cost.
b. Replacement cost is greater than net realizable value less a normal profit margin.
c. Replacement cost is greater than historical cost.
d. Net realizable value is greater than historical cost.

60 When applying the lower of cost or market method, market value cannot exceed the

a. floor.
b. net realizable value.
c. net realizable value less a normal profit margin.
d. replacement cost.

61 The use of the lower of cost or market method to value inventory indicates a probable loss sustained. This is an application of the accounting principle of

a. matching.
b. going concern.
c. conservatism.
d. consistency.

62 The use of the lower of cost or market method to value inventory for reporting purposes employs the accounting principle of

a. cost-benefit.
b. matching.
c. historical cost.
d. conservatism.

Table 9-3

Konan, Inc. uses the lower of cost or market method to determine inventory value. The following information pertains to the ending inventory:

Item	Cost	Replacement Cost	Selling Price	Cost of Completion	Normal Profit
L	$40	$38	$50	$2	$10

M	52	40	60	2	14
N	20	24	30	2	6

63 Refer to Table 9-3. The maximum limit for market value of product L is

a. $36.
b. $38.
c. $48.
d. $50.

64 Refer to Table 9-3. The minimum limit for market value of product M is

a. $42.
b. $46.
c. $56.
d. $60.

65 Refer to Table 9-3. The lower of cost or market for product N is

a. $20.
b. $22.
c. $24.
d. $28.

66 Refer to Table 9-3. The lower of cost or market for item M is

a. $40.
b. $42.
c. $46.
d. $52.

67 Refer to Table 9-3. The "market" value for item N is

a. $20.
b. $24.
c. $28.
d. $30.

68 ABC Company has elected to adopt the dollar-value LIFO inventory method when the inventory is valued at $125,000. The adoption takes place as of January 1, 2005 when the entire inventory represents a single pool. ABC Company determined that the inventory at December 31, 2005 was $144,375 at current year cost and $131,250 at base year cost using a relevant price index of 1.10. The inventory at December 31, 2005 under dollar value LIFO is

a. $131,250.
b. $131,875.
c. $138,125.
d. $144,375.

Table 9-4

The Shill Company uses the dollar-value LIFO method for valuing inventory. The following inventory information is available at the year end:

Year	Year End Price	Price Index
1	$200,000	100
2	250,000	105
3	296,000	108
4	286,000	110

69 Refer to Table 9-4. The inventory at the end of Year 2 under dollar-value LIFO is

a. $238,095.
b. $240,000.
c. $250,000.
d. $262,500.

70 Refer to Table 9-4. The inventory under dollar-value LIFO at the end of Year 3 is

a. $274,075.
b. $276,800.
c. $278,856.
d. $300,000.

71 Refer to Table 9-4. The inventory under dollar-value LIFO at the end of Year 4 is

a. $240,000.
b. $263,657.
c. $274,074.
d. $286,000.

72 LIFO layers are more likely to be liquidated when inventory records are kept on

a. an inventory group basis.
b. a total inventory basis.
c. an item-by-item basis.
d. a specific identification basis.

73 Refer to the excerpts of the 1996 Olin Corporation Annual Report on the following pages. All questions relate to 1996 unless stated otherwise. Assume a 35% corporate tax rate where necessary.

Required:

1 What amount of inventory is on the balance sheet?

2 Compute Olin's cost of goods sold using FIFO instead of LIFO.

3 Compute the amount of the cumulative tax deferral resulting from LIFO existing at the end of 1996.

4 Compute how being on LIFO affects Olin's book value (common stockholders' equity) at the end of 1996.

5 Compute the inventory turnover ratio to approximate physical unit flow for 1996.

Olin Corporation

Consolidated Statements Of Income

Years ended December 31

($ in millions, except per share data)	1996	1995	1994
SALES	$ 2,638	$ 2,665	$ 2,268
OPERATING EXPENSES:			
Cost of Goods Sold	2,021	2,115	1,844
Selling and Administration	319	293	256
Research and Development	39	34	30
OPERATING INCOME	259	223	138
Interest Expense	29	35	28
Interest and Other Income	216	16	9
INCOME FROM CONTINUING OPERATIONS BEFORE TAXES	446	204	119
Income Taxes	158	70	40
Income from Continuing Operations	288	134	79
Income (Loss) from Discontinued Operations, Net of Taxes	(8)	6	12
NET INCOME	280	140	91
Preferred Dividends	4	6	7
Net Income Available To Common Shareholders	$ 276	$ 134	$ 84
Net income (loss) per common share:			
Primary:			
Continuing Operations	$ 5.52	2.63	$ 1.57
Discontinued Operations	(0.18)	.12	.26
Net Income	$ 5.34	$ 2.75	$ 1.83
Fully Diluted:			
Continuing Operations	$ 5.43	$ 2.56	$ 1.53
Discontinued Operations	(0.16)	.11	.24
Net Income	$ 5.27	$ 2.67	$ 1.77

Notes To Financial Statements Inventories

	1996	1995
Raw materials and supplies	$ 153	$ 167
Work in process	144	168
Finished goods	172	209
	469	544
LIFO reserve	(154)	(184)
Inventory, net	$ 315	$ 360

Inventories valued using the LIFO method comprised 71% and 76% of the total inventories at December 31, 1996 and 1995, respectively. If the first-in, first-out (FIFO) method of inventory accounting had been used, inventories would have been approximately $154 and $184 higher than reported at December 31, 1996 and 1995, respectively.

74 Refer to the excerpts from the February 26, 1999 Annual Report of Steelcase on the following pages. All questions relate to the year ended February 26, 1999 unless stated otherwise. Assume a 35% corporate tax rate where necessary.

Required:

1 What amount of inventory is on the balance sheet at February 26, 1999?

2 Assume that ending inventory was overstated at February 26, 1999. Explain how net income would be affected by the error.

3 The inventory note states that inventory amounts are "based upon last-in, first-out ("LIFO") cost, not in excess of market." Which accounting principle or concept justifies writing down assets when market prices are lower than cost but leaving them at cost when market prices are higher than cost.

4 How much has Steelcase deferred in income taxes since being on LIFO?

5 Explain why investors would want to know that LIFO liquidations increased net income by $4.1 million for the year ended February 26, 1999.

6 Compute the inventory turnover ratio to approximate physical unit flow for the year ended February 26, 1999.

Steelcase inc.

Consolidated Statements Of Income

(in millions, except per share data)

Year Ended	February 26 1999	February 27 1998	February 28, 1997
Net sales	$ 2,408.4	$ 2,742.5	$ 2,760.0
Cost of sales	1,753.1	1,756.6	1,551.6
Gross profit	989.4	1,003.4	856.8
Selling, general and administrative expenses	672.2	686.0	630.4
Patent litigation expense	--	--	84.8
Operating income	317.2	317.4	141.6
Patent litigation interest expense	--	--	(111.7)
Other income, net	20.2	22.6	21.4
Income before provision for income taxes and equity in net income of joint ventures and dealer transitions	337.4	340.0	51.3
Provision for income taxes	124.9	130.9	23.6
Income before equity in net income of joint ventures and dealer transitions	212.5	209.1	27.7
Equity in net income of joint ventures and dealer transitions	8.9	7.9	--
Net income	$ 221.4	$ 217.0	$ 27.7
Earnings per share (basic and diluted)	$ 1.44	$ 1.40	$ 0.18

Notes To Consolidated Financial Statements--(Continued)

Inventories

Substantially all inventories are valued based upon last-in, first-out ("LIFO") cost, not in excess of market.

Inventories consist of (in millions):

	February 26, 1999	February 27, 1998
Finished goods	$ 40.9	$ 42.9
Work in process	32.3	30.8
Raw materials	70.8	83.7
	144.0	157.4
LIFO reserve	(47.5)	(51.6)
	$ 96.5	$ 105.8

The effect of LIFO liquidations on net income was $4.1 million, $0.6 million and $5.4 million for 1999, 1998 and 1997, respectively.

Answers

1. E; False
2. E; True
3. E; True
4. E; False
5 M; False
6 M; True
7 M; True
8 M; False
9 M; False
10 E; False
11 M; True
12 M; False
13 M; True
14 M; False
15 M; True
16 M; True
17 M; True
18 M; False
19 M; False
20 M; True
21 M; False
22 M; False
23 M; True
24 M; False
25 M; True
26 M; False
27. E; (b)
28. E; (a)
29. M; (b)

30 M; (a)
31 M; (a)
32 M; (a)
33 M; (c)
34 M; (a)
35 M; (a)
36 E; (c)
37 M; (a)
38 M; (b)
39 M; (a)
40 M; (d)
41 M; (a)
42 M; (c)
43 M; (a)
44 M; (b)
45 M; (d)
46 M; (b)
47 M; (d)
48 M; (a)
49 M; (b)
50 M; (a)
51 M; (a)
52 M; (c)
53 M; (a)
54 M; (d)
55 M; (c)
56 M; (d)
57 M; (a)
58 M; (d)
59 M; (b)
60 M; (b)
61 M; (c)
62 M; (d)
63 M; (c)
64 M; (a)
65 M; (a)
66 M; (b)
67 M; (b)
68 M; (b)
69 M; (b)
70 M; (c)
71 M; (b)
72 M; (c)

Explanation to Selected Multiple-Choice Questions

39 Ending LIFO inventory: 400 @ $3.10 = $ 1,240
120 @ 3.20 = 384
$ 1,624

40 LIFO cost of goods sold: 280 @ $3.25 = $ 910
1,280 @ 3.20 = 4,096
$ 5,006

41 FIFO cost of goods sold: 400 @ $3.10 = $ 1,240
1,160 @ 3.20 = 3,712
$ 4,952

42 Ending FIFO inventory: 280 @ $3.25 = $ 910
240 @ 3.20 = 768
$ 1,678

43 FIFO inventory $ 875,000
LIFO inventory – 750,000
$ 75,000 higher with FIFO

47 LIFO inventory $ 450,000
+ LIFO reserve 34,000
FIFO inventory $ 484,000

48 LIFO cost of goods sold $ 197,500
– increase in LIFO reserve (5,000)
estimated FIFO COGS $ 192,500

49 LIFO cost of goods sold $ 100,000
+ decrease in LIFO reserve 30,000
estimated FIFO COGS $ 130,000

56 2007: Cost of goods sold understated $ 6,000 RE over $ 6,000

	Insurance understated	(4,000)	RE over	4,000
	Retained earnings overstated	$ 10,000		
57 2006:	Cost of goods sold understated	$ 16,000	RE over	$ 16,000
	Insurance overstated	12,000	RE under	(12,000)
	Retained earnings overstated	$ 4,000		
	2007: Cost of goods sold overstated	$ 16,000	RE under	$ (16,000)
	Cost of goods sold understated	6,000	RE over	6,000
	Insurance understated	(4,000)	RE over	4,000
	Retained earnings overstated			$ (6,000)
	Total retained earnings understated			$ 2,000

63 Net real value (ceiling) = selling price $50 – cost of completion $1 = $48

64 Floor = selling price $60 – cost of completion $4 – normal profit $14 = $42

65 Cost = $20 market = $24 (replacement $24, ceiling $28, floor $22)
LCM = $20

66 Cost = $52 market = $42 (replacement $40, ceiling $56, floor $42)
LCM = $42

67 Market = $24 (replacement $24, ceiling $28, floor $22)

68

Base year inventory	$125,000 x 1.00 =		$ 125,000
Increase for 2005 (base year prices)	6,250 x 1.10=		6,875
Ending dollar value LIFO inventory			$ 131,875

69 End inventory $250,000/price index 1.05 =

inventory at base year price	=		$ 238,095
Base year inventory	$200,000 x 1.00	=	$ 200,000
Increase for Year 2 (base year prices)	38,095 x1.05	=	40,000
Ending dollar value LIFO inventory			$ 240,000

70 End inventory $296,000/price index 1.08 =

inventory at base year price	=		$ 274,074
Base year inventory	$200,000 x 1.00	=	$ 200,000
Year 2 layer (base year prices)	38,095 x1.05	=	40,000
Increase for Year 3 (base year prices)	35,979 x1.08	=	38,857
Ending dollar value LIFO inventory			$ 278,857

71 End inventory $286,000/price index 1.10 =

inventory at base year price	=		$ 260,000
Base year inventory	$200,000 (1.00	=	$ 200,000
Year 2 layer (base year prices)	38,095 (1.05	=	40,000
Year 3 layer (base year prices)	21,905 (1.08	=	23,657
Ending dollar value LIFO inventory			$ 263,657

73. Solution:

1 $315 million

2 Reported cost of goods sold + decrease in LIFO reserve = 2,021 + 30 = 2,051

3 LIFO reserve (tax rate = 154 ×.35 = 53.9

4 LIFO reserve ((1 – tax rate) = 154 ×.65 = 100.1 decrease

5 Reported cost of goods sold/Average FIFO inventory = 2,021/[(469 +544)/2] = 3.99

74 Solution:

1 $96.5 million

2 Net income would be overstated by the amount of the error net of tax. The fundamental accounting equation can be used to show the effect.

Asset (incr) = Liabilities + Stockholders' Equity (incr)

3 Conservatism

4 LIFO reserve (tax rate = 47.5 ×.35 = 16.63

5 The 4.1 should be viewed as transitory income. Consequently, cost of goods sold will be higher in future periods holding sales constant. Also, the resulting gross margin for 1999 is not comparable to 1998 or future periods. Investors should incorporate this information into their projections when valuing Steelcase.

6 (Reported cost of goods sold + pretax LIFO liquidation)/average FIFO inventory = (1,753 + 4.1/.65)/[(144 + 157.4)/2] = 11.67