

CHAPTER 23**INCOME TAXES**

1. (A) **sum of the time it takes to sell inventory and collect on accounts receivable, less the time it takes to pay for credit purchases.**

Explanation

Cash conversion cycle = (average receivables collection period) + (average inventory processing period) - (payables payment period)

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

2. (B) **zero.**

Explanation

The carrying value of the warranty liability is \$26,000 (the same amount is recorded as a liability on the balance sheet and as an expense on the income statement). The tax base is equal to the carrying value less any amounts deductible in the future. Therefore, the tax base is \$0 (\$26,000 - \$26,000) since the warranty expense will be deductible when the work is performed next year.

(Study Session 7, Module 23.2, LOS 23.c)

Related Material

[SchweserNotes - Book 2](#)

3. (C) **Return on equity has improved.**

Explanation

Leverage increased as measured by the debt-to-equity ratio from 2.25 in 2005 to 3.68 in 2007. Gross profit margin declined from 20.0% in 2005 to 18.5% in 2007. Return on equity has improved since 2005. One measure of ROE is ROA x financial leverage. Financial leverage (assets / equity) can be derived by adding 1 to the debt-to-equity ratio. In 2005, ROE was 23.4% [7.2% ROA x (1 + 2.25 debt-to-equity)]. In 2007, ROE was 27.6% [5.9% ROA x (1 + 3.68 debt-to-equity)].

(Study Session 6, Module 20.3, LOS 20.c)

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[SchweserNotes - Book 2](#)

4. (B) \$2,079.

Explanation

For tax purposes the machine is 100% depreciated at the end of year three, while for financial reporting it is only 60% depreciated.

The difference in depreciation is $\$12,676 \times (1.00 - 0.60) = \$5,070$.

Deferred tax liability = difference in depreciation \times tax rate = $\$5,070 \times 0.41 = \$2,079$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

5. (C) determine the treatment of deferred tax liabilities on a case-by-case basis.

Explanation

For financial analysis, an analyst must decide on the appropriate treatment of deferred taxes on a case-by-case basis. These can be classified as liabilities or stockholder's equity, depending on various factors. Sometimes, deferred taxes are just ignored altogether.

(Study Session 7, Module 23.2, LOS 23.b)

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6. (C) Statement#2 Statement#1

Explanation

Horizontal common-size analysis involves expressing each line item as a percentage of the base-year figure. Vertical common-size analysis involves expressing each line item of the income statement as a percentage of revenue and each line item of the balance sheet as a percentage of ending total assets.

(Study Session 6, Module 20.1, LOS 20.a)

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7. (C) IFRS only.

Explanation

Under IFRS, a tax rate that has been enacted or substantively enacted is used to measure deferred tax items. Under U.S. GAAP, only a tax rate that has actually been enacted can be used.

(Study Session 7, Module 23.5, LOS 23.j)

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[SchweserNotes - Book 2](#)

8. (A) accounts for more than 10% of the firm's assets and has risk and return characteristics distinguishable from the company's other lines of business.

Explanation

Financial statement items must be reported separately for any segment of a firm's business that is greater than 10% of revenue or assets and has risk and return characteristics that are distinguishable from those of the company's other lines of business. Requirements for reporting of geographic segments have the same size threshold and the segment must operate in a business environment that is different from that of the firm's other segments.

(Study Session 6, Module 20.5, LOS 20.f)

Related Material

[SchweserNotes – Book 2](#)

9. (A) noncurrent items.

Explanation

Under IFRS, deferred tax assets and liabilities are classified as noncurrent. Under U.S. GAAP, deferred tax items may be current or noncurrent, depending on how the underlying asset or liability is classified.

(Study Session 7, Module 23.5, LOS 23.j)

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10. (C) \$1,570.

Explanation

At the end of year 3, the oven has a tax base of zero (it has been fully depreciated for tax reporting) and a carrying value on the balance sheet of $\$12,675 - 3(0.2)(\$12,675) = \$5,070$. The deferred tax liability, valued at the 31 % tax rate that will apply when the temporary difference reverses, is $(\$5,070 - \$0)(0.31) = \$1,571.70$.

(Study Session 7, Module 23.4, LOS 23.d)

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11. (B) 0.78 \$500

Explanation

If equity equals 45% of assets, and current liabilities equals 20%, then long-term debt must be 35%.

$$\text{Long-Term Debt} / \text{Equity} = 0.35 / 0.45 = 0.78$$

$$\text{Working capital} = \text{CA} - \text{CL} = 45\% - 20\% = 25\% \text{ of assets}$$

$$\text{WC} = 2,000(0.25) = \$500$$

(Study Session 6, Module 20.2, LOS 20.b)

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12. (C) asset of \$17,000.**Explanation**

Since taxable income (\$238,000) exceeds pretax income (\$188,000), Kruger will have a deferred tax asset of \$17,000 $[(\$238,000 - \$188,000)(0.34)]$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

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13. (B) Gross profit margin.**Explanation**

The gross profit margin is used to measure a firm's operating profitability, not operating efficiency.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

14. (B) a range of target values for a ratio may be more appropriate than a single target value.**Explanation**

A range of target values for a financial ratio may be more appropriate than a single numerical target. Financial ratios are not useful when viewed in isolation and are only valid when compared to historical figures or peers. Comparing ratios among firms can be complicated by variations in accounting treatments used at each firm.

(Study Session 6, Module 20.1, LOS 20.a)

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15. (B) a deferred tax item.**Explanation**

A temporary difference between pretax income for financial reporting and taxable income for tax reporting results in a deferred tax liability if income tax expense (financial reporting) is greater than taxes payable (tax reporting), or a deferred tax asset if income tax expense is less than taxes payable. A permanent difference results in the firm having an effective tax rate that differs from the statutory tax rate. Neither results in a gain or loss.

(Study Session 7, Module 23.1, LOS 23.a)

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16. (C) **current liabilities.**

Explanation

Current liabilities are used in the denominator for the: current, quick, and cash ratios.

(Study Session 6, Module 20.2, LOS 20.b)

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17. (A) **A firm is unlikely to have future taxable income that would enable it to take advantage of deferred tax assets.**

Explanation

A valuation allowance is a contra account (offset) against deferred tax assets that reflects the likelihood that the deferred tax assets will never be realized. If a firm is unlikely to have future taxable income, it would be unlikely to ever use its deferred tax assets, and therefore must record a valuation allowance.

(Study Session 7, Module 23.5, LOS 23.g)

Related Material

[SchweserNotes - Book 2](#)

18. (C) **Taxes payable are determined by pretax income and the tax rate.**

Explanation

Taxes payable are the taxes due to the government and are determined by taxable income and the tax rate. Note that pretax income is income before tax expense and is used for financial reporting. Taxable income is the income based upon IRS rules that determines taxes due and is used for tax reporting.

(Study Session 7, Module 23.1, LOS 23.a)

Related Material

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19. (A) **Changes in valuation allowances can be used to manage reported net income.**

Explanation

A valuation allowance is a contra account (offset) against deferred tax assets that reflects the likelihood that the deferred tax assets will never be realized. Changes in the valuation allowance have a direct impact on reported income. Because management has discretion with regard to the amount and timing of a valuation allowance, changes in the valuation allowance give management significant opportunity to manage earnings.

(Study Session 7, Module 23.5, LOS 23.g)

Related Material

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20. (A) **\$90,000.**

Explanation

According to SEAS 109, Current provision = statutory rate x taxable income 30%
 = Taxes Payable / \$300,000
 = 0.30 x \$300,000
 = \$90,000

(Study Session 7, Module 23.5, LOS 23.0)

Related Material

[SchweserNotes - Book 2](#)

21. (B) **against deferred tax assets based on the likelihood that those assets will not be realized.**

Explanation

Valuation allowance is a reserve against deferred tax assets based on the likelihood that those assets will not be realized. Deferred tax assets reflect the difference in tax expense and taxes payable that are expected to be recovered from future operations.

(Study Session 7, Module 23.1, LOS 23.a)

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22. (B) **\$1,200,000.**

Explanation

The 25% GP indicates that the cost of goods sold is 75% of sales. The inventory is derived from the difference between current ratio and the quick ratio. The current ratio indicates that the current assets are \$200,000 and the quick assets are \$125,000. The difference represents the inventory of \$75,000. The inventory turnover is used to obtain cost of goods sold of \$900,000. The cost of goods sold is 75% of sales, indicating that sales are \$1,200,000.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

23. (B) **Only one of the ratios is a profitability ratio.**

Explanation

(Cash + short-term marketable investments + receivables) divided by average daily cash expenditures is known as the defensive interval ratio. The defensive interval ratio is a liquidity ratio that measures the firm's ability to pay cash expenditures in the absence of external cash flows, but does not directly measure profitability. EBIT / average total assets is one variation of the return on assets ratio. Return on assets is a profitability ratio that measures the efficiency of managing assets and generating profits.

(Study Session 6, Module 20.2, LOS 20.b)

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24. (B) No effect Increase

Explanation

Collecting receivables increases cash and decreases accounts receivable. Thus, current assets do not change and the current ratio is unaffected. Because the numerator of the cash ratio only includes cash and marketable securities, collecting accounts receivable increases the cash ratio.

(Study Session 6, Module 20.2, LOS 20.b)

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25. (A) 4.65 0.93

Explanation

Current ratio = $[100(\text{cash}) + 750(\text{accounts receivable}) + 300(\text{marketable securities}) + 850(\text{inventory})] / [300(\text{AP}) + 130(\text{short term debt})] = (2000 / 430) = 4.65$

Cash ratio = $[100(\text{cash}) + 300(\text{marketable securities})] / [300(\text{AP}) + 130(\text{short term debt})] = (400 / 430) = 0.93$

(Study Session 6, Module 20.2, LOS 20.b)

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26. (B) 1.29.

Explanation

Inventory turnover = $1,100(\text{COGS}) / 850(\text{inventory}) = 1.29$

(Study Session 6, Module 20.2, LOS 20.b)

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27. (A) 52 days.

Explanation

Days of sales outstanding = $365 / 10 = 36.5$ days

Days of inventory on hand = $365 / 8 = 45.6$ days

Days of payables = $365 / 12 = 30.4$ days

Cash conversion cycle = $36.5 + 45.6 - 30.4 = 51.7$ days

(Study Session 6, Module 20.2, LOS 20.b)

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28. (B) 2.4 26.8%

Explanation

The current ratio is equal to 2.4 [(4.8% cash + 14.9% accounts receivable + 49.4% inventory) / (15.0% accounts payable + 13.8% accrued liabilities)]. This ratio can be calculated from the common size balance sheet because the percentages are all on the same base amount (total).

Return on equity is equal to net income divided by average total equity. Since this ratio mixes an income statement item and a balance sheet item, it is necessary to convert the common-size inputs to dollars. Net income is \$11,211,200 (\$215,600,000 x 5.2%) and average equity is \$41,772,000 [(\$95,300,000 x 48.0%) + \$37,800,000] / 2. Thus, 2007 ROE is 26.8% (\$11,211,200 net income / \$41,772,000 average equity).

(Study Session 6, Module 20.2, LOS 20.b)

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29. (A) \$55,500 \$7,030

Explanation

DTL = (tax depreciation - financial statement depreciation) x future tax rate
 = (\$94,000 - \$75,000) x 37% = \$7,030.

DTA = (estimated warranty expense - actual warranty expense) x future tax rate
 = (\$250,000 - \$100,000) x 37% = \$55,500.

(Study Session 7, Module 23.4, LOS 23.d)

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30. (B) 166,667.

Explanation

Diluted EPS uses average price. Since the average price is greater than the exercise price, the warrants are dilutive.

$$\frac{60-50}{60} \times 1,000,000 = 166,667$$

For Further Reference:

(Study Session 6, Module 17.4, LOS 17.g)

CFA® Program Curriculum, Volume 3, page 34

CFA® Program Curriculum, Volume 3, page 34

Related Material

[SchweserNotes - Book 2](#)

31. (C) Liability of \$120.

Explanation

	Year 1	Year 2	Year 3
Income tax expense	\$400	\$400	\$360
Taxes paid	\$320	\$360	\$360
Deferred tax liability	\$80	\$120	\$120

(Study Session 7, Module 23.3, LOS 23.d)

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[SchweserNotes - Book 2](#)

32. (B) pretax income greater than taxable income due to temporary differences.

Explanation

Deferred tax liabilities result from temporary differences that cause pretax income and income tax expense (on the income statement) to be greater than taxable income and taxes due (on the firm's tax form). Temporary differences that cause pretax income to be less than taxable income are recognized as deferred tax assets. Permanent differences do not result in deferred tax items; instead they cause the effective tax rate to differ from the statutory tax rate.

(Study Session 7, Module 23.5, LOS 23.f)

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33. (B) \$58.4 million.

Explanation

Set up the cash conversion cycle formula and solve for the missing variable, sales. Days in payables is equal to 73 [365 / 5 accounts payable turnover]. Days in inventory is equal to 36.5 [365 / (\$30 million COGS / \$3 million average inventory)]. Given the cash conversion cycle, days in inventory, and days in payables, calculate days in receivables of 50 [13.5 days cash conversion cycle + 73 days in payables - 36.5 days in inventory]. Given days in receivables of 50 and average receivables of \$8 million, sales are \$58.4 million [(\$8 million average receivables / 50 days) x 365].

(Study Session 6, Module 20.2, LOS 20.b)

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34. (C) operating profit.

Explanation

Operating profit = earnings before interest and taxes (EBIT)

Gross profit = net sales - COGS

Net income = earnings after taxes = EAT

(Study Session 6, Module 20.2, LOS 20.b)

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[SchweserNotes - Book 2](#)

35. (A) 2.0.

Explanation

Receivables turnover = $1,500(\text{sales}) / 750(\text{receivables}) = 2.0$

(Study Session 6, Module 20.2, LOS 20.b)

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36. (B) U.S. GAAP only.

Explanation

Deferred taxes must be recognized for undistributed earnings from an investment in an associate firm under U.S. GAAP. Under IFRS, no deferred taxes are reported for undistributed earnings if the investor firm controls the sharing of profits and it is probable the temporary difference will not be reversed in the future.

For Further Reference:

(Study Session 7, Module 23.5, LOS 23.j)

CFA® Program Curriculum, Volume 3, page 424

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37. (B) Return on assets (ROA).

Explanation

The ROA will not be affected by the classification of the deferred taxes. The total assets will remain the same regardless of whether the deferred taxes are classified as a liability or equity. Return on equity and the leverage ratio (assets/equity) would both be affected.

(Study Session 7, Module 23.2, LOS 23.b)

Related Material

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38. (C) Both ratios will decrease.

Explanation

As an example, start with CA = 2, CL = 1, and Inv = 1.2. We begin with a current ratio of 2 and a quick ratio of 0.8. If the firm increases short-term bank debt (a current liability) by 1 to buy inventory (a current asset) of 1, both the numerator and denominator increase by 1, resulting $\frac{3}{2} = 1.5$ (new current ratio) and $\frac{3 - 2.2}{2} = 0.4$ (new quick ratio).

For Further Reference:

(Study Session 6, Module 20.2, LOS 20.b)

CFA® Program Curriculum, Volume 3, page 197

Related Material

[SchweserNotes - Book 2](#)

39. (B) 1.44.

Explanation

There are many different ways to illustrate ROE one of which is:

$ROE = (\text{net profit margin})(\text{asset turnover})(\text{equity multiplier})$

$0.18 = (0.05)(2.5)(\text{equity multiplier})$

$0.18 \div [(0.05)(2.5)] = \text{equity multiplier}$

$0.18 \div 0.125 = \text{equity multiplier}$

$0.18 \div 0.125 = 1.44$

(Study Session 6, Module 20.4, LOS 20.d)

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40. (B) operating income.

Explanation

Vertical common-size analysis of an income statement is typically done by stating each item as a percentage of sales. Stating each item on a financial statement as a percentage of its value in a base period is referred to as horizontal common-size analysis.

For Further Reference:

(Study Session 6, Module 20.1, LOS 20.a)

CFA® Program Curriculum, Volume 3, page 176

Related Material

[SchweserNotes - Book 2](#)

41. (A) lengthens.

Explanation

$CCC = \text{collection period} + \text{Inv Period} - \text{Payment period.}$

$\text{Payment period} = (365 / \text{payables turnover}) = (365 / 11) = 33; (365 / 12) = 30.$

This means the CCC actually increased to 83.

(Study Session 6, Module 20.2, LOS 20.b)

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[SchweserNotes - Book 2](#)

42. (A) A deferred tax asset of \$32,000.

Explanation

Oliver has paid tax on the \$80,000 revenue in 20X8, but has not recorded the revenue on it for financial statement purposes. This results in a temporary difference of \$32,000, which is a deferred tax asset. The tax asset will be realized when the company recognizes the revenue on its financial statements in the subsequent period.

(Study Session 7, Module 23.2, LOS 23.c)

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43. (B) 20%.

Explanation

$$\text{ROE} = \frac{\text{net income}}{\text{equity}} = \frac{0.16(1,500)}{(1-0.40)(2,000)} = 0.20, \text{ or } 20\%$$

If the debt ratio (TD/TA) is equal to 40% and the firm has no preferred stock, the percentage of equity is 1 - 0.40, or 60%.

For Further Reference:

(Study Session 6, Module 20.2, LOS 20.b)

CFA® Program Curriculum, Volume 3, page 197

Related Material

[SchweserNotes - Book 2](#)

44. (C) 2.018.

Explanation

Quick ratio = (cash + marketable securities + receivables) / CL = (450 + 0 + 660) / 550 = 2.018

(Study Session 6, Module 20.2, LOS 20.b)

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[SchweserNotes - Book 2](#)

45. (C) \$60,000.

Explanation

The asset's tax base is reduced by the DDB depreciation (2/5 x 100,000 = 40,000) from \$100,000 to \$60,000.

(Study Session 7, Module 23.2, LOS 23.c)

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[SchweserNotes - Book 2](#)

46. (C) will increase.

Explanation

The DuPont decomposition (ROE = net profit margin x asset turnover x leverage ratio) shows that ROE will increase if asset turnover increases, assuming net profit margin and leverage are unchanged.

(Study Session 6, Module 20.4, LOS 20.d)

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47. (B) presented as noncurrent on the balance sheet.

Explanation

Both IFRS and U.S. GAAP allow deferred taxes to be presented as noncurrent on the balance sheet. However, U.S. GAAP classification depends on whether the underlying asset or liability is current or noncurrent. IFRS requires deferred taxes to be presented as noncurrent and under certain circumstances allows them to be netted on the balance sheet. U.S. GAAP requires that deferred taxes be measured using an enacted tax rate, while IFRS allows measurement using an enacted or substantially enacted tax rate. U.S. GAAP does not allow fixed asset revaluation. Deferred taxes resulting from fixed or intangible asset revaluation is recognized in equity under IFRS.

(Study Session 7, Module 23.5, LOS 23.j)

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[SchweserNotes - Book 2](#)

48. (A) \$40.

Explanation

	Year 1	Year 2	Year 3	Year 4
Income tax expense	\$400	\$400	\$360	\$320
Taxes paid	\$320	\$360	\$360	\$400
Deferred tax liability	\$80	\$120	\$120	\$40

(Study Session 7, Module 23.3, LOS 23.d)

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[SchweserNotes - Book 2](#)

49. (C) tax rate that will apply when the temporary difference reverses.

Explanation

Measurement of deferred tax items is based on the tax rate that will apply when the temporary difference reverses. In some cases this may depend on how a temporary difference is settled, which determines whether a capital gains tax rate or income tax rate will apply.

(Study Session 7, Module 23.5, LOS 23.h)

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50. (B) increase Fred's income tax expense by \$400,000.

Explanation

The change in Fred's rates causes its deferred tax liability to increase $[(40 - 30) / 30] \times \$1,200,000 = \$400,000$. This is reported on the income statement as an increase in current income tax expense.

For Further Reference:

(Study Session 7, Module 23.3, LOS 23.d)

CFA® Program Curriculum, Volume 3, page 399

Related Material

[SchweserNotes - Book 2](#)

51. (B) \$4.5 million.

Explanation

Manhattan's quick assets were equal to \$9 million (\$15 million current assets - \$6 million inventory). Given a quick ratio of 2.0, quick assets were twice the current liabilities. Thus, the current liabilities must have been \$4.5 million (\$9 million quick assets / 2.0 quick ratio).

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

52. (C) 219.0 days.

Explanation

Receivables turnover = $\$250,000 / \$150,000 = 1.66667$

Collection period = $365 / 1.66667 = 219$ days

(Study Session 6, Module 20.2, LOS 20.b)

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[SchweserNotes - Book 2](#)

53. (A) 25 days.

Explanation

Average receivables collection period = $365 / \text{receivables turnover}$, which is 22.81 days for the industry ($= 365 / 16$). If Q-Tell's receivables turnover is less than 16, its average days collection period must be greater than 22.81 days.

(Study Session 6, Module 20.3, LOS 20.c)

Related Material

[SchweserNotes - Book 2](#)

54. (C) should be considered an increase in equity.

Explanation

If deferred tax liabilities are expected to reverse in the future, then they should be classified as liabilities. If, however, they are not expected to reverse in the future, then they should be classified as equity.

(Study Session 7, Module 23.2, LOS 23.b)

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55. (C) **only one is correct:**

Explanation

Vertical common-size statements enable the analyst to make better comparisons of two firms of different sizes that operate in the same industry. Horizontal common-size financial statements express each line as a percentage of the base year figure; thus, horizontal common-size statements can be used to identify structural changes in a firm's operating results and financial condition over time.

(Study Session 6, Module 20.1, LOS 20.a)

Related Material

[SchweserNotes - Book 2](#)

56. (A) **3,300 4,100**

Explanation

Using DDB:

	Yr. 1	Yr. 2
Revenue	15,000	15,000
Depreciation	4,000	1,333
Taxable Income	11,000	13,667
Taxes Payable	3,300	4,100

An asset with a 3-year life would have a straight line depreciation rate of 0.3333 per year. Using DDB the depreciation rate is twice this amount or 0.66667. \$2,000 is the amount of depreciation left on the equipment in year 2 (\$6,000 - \$4,000). Therefore, the amount of depreciation in the 2nd year is $(0.66667)(2,000) = \$1,333$

(Study Session 7, Module 23.5, LOS 23.i)

Related Material

[SchweserNotes - Book 2](#)

57. (A) **22.86% and increase its deferred tax liability by \$1,000,000.**

Explanation

Total taxes eventually due on 2004 activities were $((\$2,000,000 \times 0.40) + (\$4,000,000 \times 0.20) =) \$1,600,000$. Permanent differences are adjusted in the effective tax rate, which is $(\$1,600,000 / \$7,000,000 =) 22.86\%$. Of the \$1,600,000 taxes due, $((\$2,000,000 \times 0.50 \times 0.40) + (\$4,000,000 \times 0.25 \times 0.20) =) \$600,000$ were paid in 2004 and \$1,000,000 ($\$1,600,000 - \$600,000$) is added to deferred tax liability.

(Study Session 7, Module 23.5, LOS 23.f)

Related Material

[SchweserNotes - Book 2](#)

58. (B) net income/sales x sales/assets x assets/equity.

Explanation

The traditional three-part DuPont decomposition of ROE is profit margin x asset turnover x financial leverage. Although ROE can also be decomposed as net income/assets x sales/equity x assets/sales, this is not the DuPont equation.

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

59. (A) 3 million.

Explanation

Cash ratio = (cash + marketable securities) / current liabilities

0.20 = (\$10,000,000 + \$2,000,000) / current liabilities

current liabilities = \$12,000,000 / 0.2 = \$60,000,000

Quick ratio = [cash + marketable securities + receivables] / \$60,000,000

0.25 = [\$10,000,000 + \$2,000,000 + receivables] / \$60,000,000

(\$60,000,000)(0.25) = \$12,000,000 + receivables

\$15,000,000 = \$12,000,000 + receivables

\$15,000,000 - \$12,000,000 = receivables

\$3,000,000 = receivables

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

60. (C) 0.666.

Explanation

Gross profit margin = (gross profit / net sales) = (2,000 / 3,000) = 0.666

(Study Session 6, Module 20.2, LOS 20.b)

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[SchweserNotes - Book 2](#)

61. (C) reduces reported income, reduces assets, and reduces equity.

Explanation

A valuation allowance is a contra account (offset) against deferred tax assets that reflects the likelihood that the deferred tax assets will never be realized. The establishment of a valuation allowance reduces reported income, offsets (reduces) assets, and reduces equity.

(Study Session 7, Module 23.5, LOS 23.g)

Related Material

[SchweserNotes - Book 2](#)

62. (B) Inventory.

Explanation

Quick ratio = (cash + marketable securities + receivables) / current liabilities

Current ratio = (cash + marketable securities + receivables + inventory) / current liabilities

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

63. (C) \$35,000.

Explanation

For tax purposes, bad debt expense cannot be deducted until the receivables are deemed worthless. Therefore, the tax base is \$35,000 since no bad debt expense has been deducted on the tax return. Note that the carrying value would be \$31,500 since bad debt expense is reflected on the income statement.

(Study Session 7, Module 23.2, LOS 23.c)

Related Material

[SchweserNotes - Book 2](#)

64. (A) U.S. GAAP, but not IFRS.

Explanation

Under U.S. GAAP, the full amount of a DTA is shown on the balance sheet, with a contra account (valuation allowance) if it is likely that the full amount of the DTA will not be realized in the future. Under IFRS, the reported value of a DTA is reduced if there is a positive probability that the full amount of the DTA will not be realized in the future.

(Study Session 7, Module 23.5, LOS 23.j)

Related Material

[SchweserNotes - Book 2](#)

65. (A) net taxable loss that can be used to reduce taxable income in the future.

Explanation

A tax loss carryforward is the net taxable loss that can be used to reduce taxable income in the future.

(Study Session 7, Module 23.1, LOS 23.a)

Related Material

[SchweserNotes - Book 2](#)

66. (A) Asset turnover.

Explanation

The three-part DuPont approach is as follows: net profit margin x asset turnover x leverage ratio, where the leverage ratio is assets-to-equity.

For Further Reference:

(Study Session 6, Module 20.4, LOS 20.d)

CFA® Program Curriculum, Volume 3, page 221

Related Material

[SchweserNotes - Book 2](#)

67. (B) cross-sectional analysis.

Explanation

Comparing a company's ratios with those of its competitors is known as cross-sectional analysis.

(Study Session 6, Module 20.1, LOS 20.a)

Related Material

[SchweserNotes - Book 2](#)

68. (C) 26 days.

Explanation

Cash conversion cycle = receivables collection period + inventory processing period - payables payment period.

Receivables collection period = $(365 / 20) = 18$

Inventory processing period = $(365 / 16) = 23$

Payables payment period = $(365 / 24) = 15$

Cash conversion cycle = $18 + 23 - 15 = 26$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

69. (B) increase the quick ratio.

Explanation

The quick ratio numerator is cash plus marketable securities plus accounts receivable, and the denominator is current liabilities. The numerator is unaffected by a change in inventory, while the denominator decreases with a decrease in accounts payable, so the quick ratio will increase.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

70. (A) 20%.

Explanation

Operating profit margin = $(\$1,000 \text{ revenues} - \$600 \text{ COGS} - \$200 \text{ operating expenses}) / \$1,000 \text{ revenues} = \$200 / \$1000 = 0.2$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

71. (B) liability of \$21,760.

Explanation

Since pretax income (\$195,000) exceeds the taxable income (\$131,000), Blue Horizon will have a deferred tax liability of \$21,760 $[(\$195,000 - \$131,000) (0.34)]$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

72. (B) Debt to total capital.

Explanation

The debt to total capital ratio is not part of the original DuPont system. The firm's leverage is accounted for through the equity multiplier.

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

73. (A) asset of \$8,500.

Explanation

Since taxable income (\$119,000) exceeds pretax income (\$94,000), Camphor will have a deferred tax asset of \$8,500 $[(\$119,000 - \$94,000) (0.34)]$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

74. (A) includes taxes payable and deferred income tax expense.

Explanation

Income tax expense is defined as expense resulting from current period pretax income. It includes taxes payable and deferred income tax expense. Taxes payable are the amount of taxes due the government.

(Study Session 7, Module 23.1, LOS 23.a)

Related Material

[SchweserNotes - Book 2](#)

75. (C) 9%.

Explanation

Return on equity (ROE) = net profit margin x asset turnover x leverage
 = (0.15)(0.67)(1.364) = 0.137.

The sustainable growth = (1 - dividend rate)(ROE) = (0.65)(0.137) = 8.9%.

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

[SchweserNotes - Book 2](#)

76. (B) of different size in the same industry.

Explanation

Ratio analysis is a useful way of comparing companies that are similar in operations but different in size. Ratios of companies that operate in different industries are often not directly comparable. For companies that operate in several industries, ratio analysis is limited by the difficulty of determining appropriate industry benchmarks.

(Study Session 6, Module 20.1, LOS 20.a)

Related Material

[SchweserNotes - Book 2](#)

77. (A) 30%.

Explanation

Reported effective tax rate = Income tax expense / pretax income

= \$3,000 / \$10,000

= 30%

(Study Session 7, Module 23.5, LOS 23.i)

Related Material

[SchweserNotes - Book 2](#)

78. (B) \$600\$400

Explanation

Using DDB:

	Yr. 1	Yr. 2
Revenue	15,000	15,000
Dep.	4,000	1,333
Taxable Inc	11,000	13,667
Taxes Pay	3,300	4,100

Using SL:

	Yr. 1	Yr. 2
Revenue	15,000	15,000
Dep.	2,000	2,000
Pretax inc	13,000	13,000
Tax Exp	3,900	3,900

Deferred taxes year 1 = 3,900 - 3,300 = 600

Deferred taxes year 2 = 3,900 - 4,100 + previously deferred taxes = -200 + 600 = 400

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

79. (C) 9.3%.

Explanation

$ROE = 150(NI) / [1000(\text{common}) + 620(RE)] = 150 / 1620 = 0.0926$ or 9.3%

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

80. (A) an increase in deferred tax liability and an increase in tax expense.

Explanation

An increase in tax rates will increase future deferred tax liability, and the impact of the increase in liability will be reflected in the income statement of the year in which the tax rate change is affected.

(Study Session 7, Module 23.4, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

81. (A) are considered as changes in the effective tax rate.

Explanation

The permanent differences are never deferred but are considered increases or decreases in the effective tax rate. The financial statements include an effective tax rate reconciliation that addresses permanent differences between pretax and taxable income. If the only difference between the taxable and pretax incomes were a permanent difference, then tax expense would simply be taxes payable.

(Study Session 7, Module 23.5, LOS 23.f)

Related Material

[SchweserNotes - Book 2](#)

82. (A) **Deferred tax assets and liabilities are classified as noncurrent.**

Explanation

Deferred tax items are classified as noncurrent.

(Study Session 7, Module 23.5, LOS 23.i)

Related Material

[SchweserNotes - Book 2](#)

83. (C) **4 times.**

Explanation

ICR = operating profit ÷ I = EBIT ÷ I = 100,000 ÷ 25000 = 4

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

84. (B) **higher than G Company's because its interest coverage ratio is less than one-third of G Company's.**

Explanation

E Company's interest coverage ratio (EBIT / interest expense) is (30 / 20) = 1.5.

G Company's interest coverage ratio is (25 / 5) = 5.0. Higher interest coverage means greater ability to cover required interest and lease payments. Note that 1.5 / 5.0 = 0.30, which means the interest coverage for E Company is less than 1/3 that of G Company.

(Study Session 6, Module 20.3, LOS 20.c)

Related Material

[SchweserNotes - Book 2](#)

85. (C) **\$60.**

Explanation

Effective tax rate = Income tax expense / pretax income

Income tax expense = Effective tax rate x pretax income = \$150(0.40)

= \$60

(Study Session 7, Module 23.5, LOS 23.i)

Related Material

[SchweserNotes - Book 2](#)

86. (C) **Sales/Total Assets.**

Explanation

Sales/Total Assets, or Total Asset Turnover is a measure of operating efficiency, not operating profitability.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

87. (A) \$20,000 \$3,000

Explanation

Taxes payable = taxable income x current tax rate = \$50,000 x 40% = \$20,000.
Taxes payable will be based on the current tax rate of 40%.

DTL = (pretax income - taxable income) x 30%
= (\$60,000 - 50,000) x 30% = \$3,000.

Deferred tax assets and liabilities must reflect the impact of a change in tax rates or tax laws.

(Study Session 7, Module 23.4, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

88. (A) a liability or equity, depending on the company's particular situation.

Explanation

The recommended analyst treatment of deferred tax liabilities is to treat them as liabilities if they are expected to reverse or as equity if they are not expected to reverse.

(Study Session 7, Module 23.2, LOS 23.b)

Related Material

[SchweserNotes - Book 2](#)

89. (B) \$10 \$0

Explanation

First, for 2003, remember that the deferred tax liability (DTL) is cumulative so, it includes the balance from prior years, (assume 2002 in this example since we have no other information).

DTL cumulative = (tax return depreciation - financial statement depreciation) x tax rate + DTL from previous year

- DTL for 2002: $(75 - 50) \times 0.4 + 0 = 10$
- DTL for 2003: $(50 - 50) \times 0.4 + 10 = 10$
- DTL for 2004: $(25 - 50) \times 0.4 + 10 = 0$

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

90. (B) 7.67 0.30

Explanation

Interest coverage ratio = (EBIT / interest expense) = $(115 / 15) = 7.67$

Net profit margin = (net income / net sales) = $(60 / 200) = 0.30$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

91. (B) 78%

Explanation

If equity equals 45% of assets and current liabilities equal 20% of assets, long-term debt must be $100 - 45 - 20 = 35\%$ of assets.

$$\text{Long-term debt to equity ratio} = \frac{\text{Long-term debt}}{\text{Total equity}} = \frac{0.35}{0.45} = 77.8\%$$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

92. (C) 86 days.

Explanation

2008 expected days of sales outstanding is 66 [$365 / (5.0 \times 1.1)$], 2008 days of inventory on hand is 96 [$365 / (4.0 \times 0.95)$], and 2008 days of payables is 76 [$365 / (6.0 \times 0.8)$]. Expected cash conversion cycle is 86 days [66 days of sales outstanding + 96 days of inventory on hand - 76 days of payables].

(Study Session 6, Module 20.3, LOS 20.c)

Related Material

[SchweserNotes - Book 2](#)

93. (C) If deferred tax liabilities are not included in equity, debt-to-equity ratio will be reduced.

Explanation

When deferred tax liabilities are included in equity, it will reduce the debt-to-equity ratio (by increasing the denominator), in some cases considerably.

(Study Session 7, Module 23.2, LOS 23.b)

Related Material

[SchweserNotes - Book 2](#)

94. (C) 252.7 days.

Explanation

$$\text{COGS} = (0.65)(\$1,000,000) = \$650,000$$

$$\text{Inventory turnover} = \text{CGS} / \text{Inventory} = \$650,000 / \$450,000 = 1.4444$$

$$\text{Average Inventory Processing Period} = 365 / 1.4444 = 252.7 \text{ days}$$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

95. (A) both IFRS and U.S. GAAP.

Explanation

Both IFRS and U.S. GAAP require companies to report segment data.
(Study Session 6, Module 20.5, LOS 20.f)

Related Material

[SchweserNotes - Book 2](#)

96. (C) \$24,000 and an addition to deferred tax liabilities of \$4,000.

Explanation

Deferred tax liability = $(120,000 - 100,000) \times 0.2 = 4,000$

Tax expense = current tax rate \times taxable income + change in deferred tax liability
 $0.2 \times 100,000 + 4,000 = 24,000$

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

97. (C) A company that has an inventory turnover of 6 times, a receivables turnover of 9 times, and a payables turnover of 12 times will have a cash conversion cycle of approximately 71 days.

Explanation

The cash conversion cycle is $(365 / 6) + (365 / 9) - (365 / 12) = 60.8 + 40.6 - 30.4 = 71$ days. ROA is less than ROE when net income is positive and debt is present. The fact that a company has a high gross profit margin does not necessarily mean it will have a high net profit margin. A company with a high gross margin may have a low (or negative) net margin if its operating expenses are high.

For Further Reference:

(Study Session 6, Module 20.2, LOS 20.b)

CFA® Program Curriculum, Volume 3, page 197

Related Material

[SchweserNotes - Book 2](#)

98. (A) arise primarily due to differences between financial and tax accounting.

Explanation

Deferred tax liabilities result from temporary differences between financial accounting and tax accounting that cause income tax expense for a period to be larger than taxes due. Permanent differences do not result in deferred tax items. Whether to treat deferred tax liabilities as debt or equity depends on whether they are expected to reverse in the foreseeable future.

(Study Session 7, Module 23.5, LOS 23.f)

Related Material

[SchweserNotes - Book 2](#)

99. (A) Deferred tax assets and liabilities are not adjusted for changes in tax rates.

Explanation

Deferred tax assets and liabilities are adjusted for changes in expected tax rates under the liability method.

For Further Reference:

(Study Session 7, Module 23.4, LOS 23.e)

CFA® Program Curriculum, Volume 3, page 407

Related Material

[SchweserNotes - Book 2](#)

100. (B) 0.62.

Explanation

There are several ways to approach this question but the easiest way is to recognize that $ROE = NI / \text{average equity}$ thus $ROE = 944 / 1,519 = 0.622$.

If using the traditional DuPont, $ROE = (NI / \text{Sales}) \times (\text{Sales} / \text{Assets}) \times (\text{Assets} / \text{Equity})$:

$$ROE = (944 / 3,000) \times (3,000 / 2,920) \times (2,920 / 1,519) = 0.622$$

The 5-part Dupont formula gives the same result:

$$ROE = (\text{net income} / \text{EBT})(\text{EBT} / \text{EBIT})(\text{EBIT} / \text{revenue})(\text{revenue} / \text{total assets})(\text{total assets} / \text{total equity})$$

Where $EBIT = \text{EBT} + \text{interest} = 1,349 + 151 = 1,500$

$$ROE_{2007} = (944 / 1,349)(1,349 / 1,500)(1,500 / 3,000)(3,000 / 2,920)(2,920 / 1,519) = 0.622$$

(Study Session 6, Module 20.3, LOS 20.c)

Related Material

[SchweserNotes - Book 2](#)

101. (B) 1.1 0.8 0.6

Explanation

Current ratio = $(0.4 + 2.0 + 0.8 + 1.2) / 4.0 = 1.1$.

Quick ratio = $(0.4 + 2.0 + 0.8) / 4.0 = 0.8$.

Cash ratio = $(0.4 + 2.0) / 4.0 = 0.6$.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

102. (B) **increase current assets by 100 or decrease current liabilities by 50.**

Explanation

For the current ratio to equal 2.0, current assets would need to move to \$600 (or up by \$100) or current liabilities would need to decrease to \$250 (or down by \$50). Remember that CA -

CL = working capital (500 - 300 = 200).

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

103. (B) **Increase Decrease**

Explanation

If tax rates rise then deferred tax liabilities will also rise. The increase in deferred tax liabilities will increase the current tax expense, and if expenses are increasing the net income will decrease.

(Study Session 7, Module 23.4, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

104. (B) **both are incorrect.**

Explanation

Although manipulation of cash flow can occur, the P/E ratio is easier to manipulate because earnings are based on the numerous estimates and judgments of accrual accounting. EPS does not facilitate direct comparisons of profitability. Two firms may have the same amount of earnings but their number of shares outstanding may differ significantly.

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

[SchweserNotes - Book 2](#)

105. (B) **\$83,333,333.**

Explanation

One of the many ways ROE can be expressed is: $ROE = \text{net income} / \text{equity}$

$$0.12 = \$10,000,000 / \text{equity}$$

$$\text{Equity} = \$10,000,000 / 0.12 = \$83,333,333$$

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

106. (C) Current ratio.

Explanation

Total asset turnover measures operating efficiency and interest coverage measures a company's financial risk.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

107. (B) \$50 million increase.

Explanation

20X7 gross profit is equal to \$100 million ($\1×250 million units sold \times 40% gross profit margin). The 10% price cut to \$0.90 will increase cost of goods sold to 67% of sales [COGS = $0.6(\$1) = \0.60 ; $\$0.60 / \$0.90 = 67\%$]. As a result, gross profit will decrease to 33% of sales. If unit sales double in 20X8, gross profit will equal \$150 million ($\0.90×500 million units \times 33% gross profit margin). Therefore, gross profit will increase \$50 million ($\150 million 20X8 gross profit - $\$100$ million 20X7 gross profit).

(Study Session 6, Module 20.5, LOS 20.g)

Related Material

[SchweserNotes - Book 2](#)

108. (B) \$3,144.

Explanation

Straight-line depreciation = $\$25,352 / 5 = \$5,070$. Income (years 1, 2, and 3) using straight-line depreciation = $\$14,384 - \$5,070 = \$9,314$.

Accelerated depreciation (years 1 and 2) = $0.35(\$25,352) = \$8,873$. Income (years 1 and 2) = $\$14,384 - \$8,873 = \$5,511$.

Accelerated depreciation (year 3) = $0.3(\$25,352) = \$7,606$. Income (year 3) = $\$14,384 - \$7,606 = \$6,778$.

Cumulative difference in income at end of year 3 = $3(\$9,314) - [2(\$5,511) + \$6,778] = \$10,142$.

DTL value at new tax rate = $0.31(\$10,142) = \$3,144$.

(Study Session 7, Module 23.4, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

109. (A) an addition to equity.

Explanation

If deferred tax liabilities are expected to never reverse, they should be treated as equity for analytical purposes.

(Study Session 7, Module 23.2, LOS 23.b)

Related Material

[SchweserNotes - Book 2](#)

110. (B) Deductible expenses.

Explanation

Permanent tax differences such as tax credits, non-deductible expenses, and tax differences between capital gains and operating income give rise to differences in the effective and statutory tax rates.

(Study Session 7, Module 23.5, LOS 23.f)

Related Material

[SchweserNotes - Book 2](#)

111. (A) Calculation of ratios involves a large degree of subjectivity.

Explanation

There is not a great deal of subjectivity involved in calculating ratios. The mechanical formulas for the calculations are fairly standard and objective for the activity, liquidity, solvency, and profitability ratios, for instance. On the other hand, determining the target or comparison value for a ratio is difficult as it requires some range of acceptable values and that introduces an element of subjectivity. Conclusions cannot be made from viewing one set of ratios as all ratios must be viewed relative to one another in order to make meaningful conclusions. It can be difficult to find comparable industry ratios, especially when analyzing companies that operate in multiple industries.

(Study Session 6, Module 20.1, LOS 20.a)

Related Material

[SchweserNotes - Book 2](#)

112. (A) decrease income tax expense.

Explanation

An increase in the tax rate increases the values of both DTAs and DTLs. Because the firm's DTAs are greater than its DTLs, the net effect of adjusting their values for an increase in the tax rate will be to decrease income tax expense.

(Study Session 7, Module 23.4, LOS 23.e)

Related Material

[SchweserNotes - Book 2](#)

113. (A) Higher Higher

Explanation

Available-for-sale securities are reported on the balance sheet at fair value and any unrealized gains and losses bypass the income statement and are reported as an adjustment to equity. Thus, a decrease in fair value will result in a higher ROA ratio (lower assets). Trading securities are also reported on the balance sheet at fair value; however, the unrealized gains and losses are recognized in the income statement. Therefore, an increase in fair value will result in higher ROA. In this

case, both the numerator and denominator are higher; however, since the ratio is less than one, the percentage change of the numerator is greater than the percentage change of the denominator, so the ratio will increase.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

114. (B) Interest burden.

Explanation

EBT / EBIT is the interest burden, the second component in the extended DuPont equation. It shows that more leverage does not always lead to higher ROE. As leverage rises, so does the interest burden. The positive effects of leverage can be offset by the higher interest payments that accompany higher levels of debt. Net income / EBT is called the tax burden and is equal to (1 - tax rate). The higher the tax rate, the lower the ROE level. EBIT / revenue is called the EBIT margin or operating margin.

For Further Reference:

(Study Session 6, Module 20.4, LOS 20.d)

CFA® Program Curriculum, Volume 3, page 221

Related Material

[SchweserNotes - Book 2](#)

115. (C) reduce the asset by establishing a valuation allowance of \$2,000,000 against the asset.

Explanation

If it becomes more likely than not that deferred tax assets will not be fully realized, a valuation allowance that reduces the asset and also reduces income from continuing operations should be established.

(Study Session 7, Module 23.5, LOS 23.g)

Related Material

[SchweserNotes - Book 2](#)

116. (A) 3.25.

Explanation

First, calculate beginning inventory given COGS, purchases, and ending inventory. Beginning inventory was \$35 million [\$130 million COGS + \$45 million ending inventory - \$140 million purchases]. Next, calculate average inventory of \$40 million [(\$35 million beginning inventory + \$45 million ending inventory) / 2]. Finally, calculate inventory turnover of 3.25 [\$130 million COGS / \$40 million average inventory].

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

117 (A) A permanent difference will result between tax and financial reporting.

Explanation

A permanent difference between tax and financial reporting is a difference that is expected to not reverse itself. Under normal circumstances, the effects of the different depreciation methods will reverse.

(Study Session 7, Module 23.1, LOS 23.a)

Related Material

[SchweserNotes - Book 2](#)

118. (A) Description #3 Description #2

Explanation

Sensitivity analysis develops a range of possible outcomes as specific inputs are changed one at a time. Sensitivity analysis is also known as "what-if" analysis. Scenario analysis is based on a specific set of outcomes for multiple variables. Computer generated analysis, based on developing probability distributions of key variables, is known as simulation analysis.

(Study Session 6, Module 20.5, LOS 20.g)

Related Material

[SchweserNotes - Book 2](#)

119. (A) One is used primarily to assess its ability to meet short-term obligations, and the other is used primarily to assess its ability to meet long-term obligations.

Explanation

The quick ratio is a liquidity ratio. Liquidity ratios are used to measure a firm's ability to meet its short-term obligations. The debt-to-capital ratio is a solvency ratio. Solvency ratios are used to measure a firm's ability to meet its longer-term obligations.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

120. (A) 183.

Explanation

Receivables turnover = $1,500(\text{sales}) / 750(\text{receivables}) = 2.0$ Average receivables collection period = $365 / 2 = 182.5$ or 183

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

121 (A) \$780.

Explanation

Pretax Income = \$7,192 - \$2,535 = \$4,657

Taxable Income = \$7,192 - \$4,437 = \$2,755

Deferred Tax liability = (\$4,657 - \$2,755)(0.41) = \$780.

Alternative solution:

Difference in depreciation at the end of year one is \$12,676 x (0.35 - 0.20) = \$1,901
 Deferred tax liability = difference in depreciation x tax rate = \$1,901 x 0.41 = \$780.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

122. (C) 79 days.

Explanation

Cash conversion cycle = receivables days + inventory processing days - payables payment period.

Receivables days = 365 / receivables turnover = 365 / 10 = 36.5 days.

Inventory processing days = 365 / inventory turnover = 365 / 5 = 73.0 days.

Payables payment period = 365 / payables turnover = 365 / 12 = 30.4 days.

Cash collection cycle = 36.5 + 73.0 - 30.4 = 79.1 days.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

123. (C) Lawrence has the greatest uncertainty about its net income.

Explanation

Jerome CV sales = 400,000 / 1,200,000 = 0.33

Lawrence CV sales = 700,000 / 3,500,000 = 0.20

Morris CV sales = 1,600,000 / 6,400,000 = 0.25

Uncertainty about sales is greatest for Jerome and least for Lawrence.

Jerome CV net income = 80,000 / 120,000 = 0.67

Lawrence CV net income = 300,000 / 400,000 = 0.75

Morris CV net income = 400,000 / 800,000 = 0.50

Uncertainty about net income is greatest for Lawrence and least for Morris.

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

[SchweserNotes - Book 2](#)

124. (B) \$1,130.

Explanation

Tax payable for year 1 is = $[\$7,192 - (\$12,676 \times 0.35)] \times 0.41 = \$1,130$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

125. (B) increase.

Explanation

The \$200,000 difference between the tax base and the carrying value of the equipment gives rise to a taxable temporary difference, which leads to a deferred tax liability of $\$200,000 \times 30\% = \$60,000$. The tax loss carryforward of \$200,000 leads to a deferred tax asset of $\$200,000 \times 30\% = \$60,000$.

Because these amounts are equal, the increase in the tax rate will increase the associated DTA and DTL by the same amounts, leaving equity unchanged.

(Study Session 7, Module 23.4, LOS 23.e)

Related Material

[SchweserNotes - Book 2](#)

126. (B) \$8,000.

Explanation

"Pretax income" denotes earnings before taxes for financial reporting. "Taxable income" is earnings before taxes for computing taxes payable, where taxes payable refers to the actual tax liability to the government. Since taxable income is \$80,000, the difference in taxes payable is $(\$80,000)(0.5) - (\$80,000)(0.4) = \$8,000$.

(Study Session 7, Module 23.4, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

127. (B) Yes No

Explanation

The sustainable growth rate is equal to ROE multiplied by the retention rate. According to the Dupont formula, an increase in net profit margin will result in higher ROE. Thus, an increase in net profit margin will result in a higher growth rate. The retention rate is equal to 1 minus the dividend payout ratio. Thus, an increase in the dividend payout ratio will lower the retention rate and lower the growth rate.

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

[SchweserNotes - Book 2](#)

128. (B) Activity ratio Solvency ratio

Explanation

Revenue divided by average working capital, also known as the working capital turnover ratio, is an activity ratio. Average total assets divided by average total equity, also known as the financial leverage ratio, is a solvency ratio.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

129. (C) 4.65.

Explanation

Current ratio = $[100(\text{cash}) + 750(\text{AR}) + 300(\text{marketable securities}) + 850(\text{inventory})] / [300(\text{AP}) + 130(\text{short-term debt})] = (2,000 / 430) = 4.65$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

130. (B) 1.59 0.86

Explanation

Current ratio = current assets / current liabilities = $12,297 / 7,735 = 1.59$

Quick ratio = $(\text{cash} + \text{receivables}) / \text{current liabilities} = 2,098 + 4,570 / 7,735 = 0.86$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

131. (A) \$20,000 Liability \$4,000 Asset

Explanation

A deferred tax liability and asset is created when an income or expense item is treated differently on financial statements than it is on the company's tax returns.

A deferred tax liability is when that difference results in greater tax expense on the financial statements than taxes payable on the tax return.

The deferred tax liability for firm 1 = $\$180,000 \text{ tax expense} - \$160,000 \text{ taxes payable} = \$20,000$

A deferred tax asset is when that difference results in lower taxes payable on the financial statements than on the tax return.

The deferred tax asset for firm 2 = $\$200,000 \text{ taxes payable} - \$196,000 \text{ tax expense} = \$4,000$

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

132. (B) 0.50.

Explanation

Operating profit margin = (EBIT / sales) = (1,500 / 3,000) = 0.5
(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

133. (C) \$2,748 \$2,535

Explanation

Net income in year 1 for financial reporting purposes will be \$2,748 = [(\$7,192 - \$2,535)(1 - 0.41)]

The annual depreciation expense on financial statements will be \$2,535 = (\$12,676 / 5 years) (Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

134. (A) decrease. decrease.

Explanation

A decrease in the future tax rate decreases the balance sheet value of either a deferred tax liability or a deferred tax asset.

(Study Session 7, Module 23.4, LOS 23.e)

Related Material

[SchweserNotes - Book 2](#)

135. (B) Net profit margin, asset turnover, equity multiplier.

Explanation

The three ratios can be further decomposed as follows:

Net profit margin = net income/sales

Asset turnover = sales/assets

Equity multiplier = assets/equity

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

136 (B) 3.15.

Explanation

ROE in 20X4 was 0.18 x 1.75 x 1.5 = 0.4725.

If ROE for 20X5 is unchanged from 20X4, then:

0.10 x asset turnover x 1.5 = 0.4725

Asset turnover = 3.15.

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

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137. (A) \$10,800

Explanation

Deferred tax liability = $\$36,000 \times 30\% = \$10,800$.

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

[SchweserNotes - Book 2](#)

138. (C) liability of \$10,880.

Explanation

Since pretax income (\$97,500) exceeds the taxable income (\$65,500), United Technologies will have a deferred tax liability of $\$10,880 = R \$97,500 - \$65,500$ (0.34)]

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

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139. (C) \$8.8 million.

Explanation

20X8 sales are expected to be \$110 million [$\$100 \text{ million} \times 1.1$] and COGS is expected to be \$44 million [$\$110 \text{ million sales} \times 40\%$]. With 73 days of inventory on hand, average inventory is \$8.8 million [$(\$44 \text{ million COGS} / 365) \times 73 \text{ days}$].

(Study Session 6, Module 20.5, LOS 20.g)

Related Material

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140. (C) Current Ratio.

Explanation

The current ratio is a liquidity measure. Equity turnover and net profit margin are used primarily as measures of a company's operating performance.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

141. (A) 9.6%.

Explanation

Net income after taxes = $300 \times 0.18 = 54$

Equity = $1400 \times 0.40 = 560$

ROE = Net Income / Equity = $54 / 560 = 0.0964 = 9.6\%$

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

[SchweserNotes - Book 2](#)

142. (A) Entertainment, Lodging, and Services.

Explanation

For portions of a company that are distinguishable by their risk and return characteristics, IFRS and U.S. GAAP require segment reporting if a portion accounts for more than 10% of the company's revenues or assets. Services and Lodging each account for more than 10% of Pastel's total revenues and assets, and Entertainment accounts for more than 10% of Pastel's total assets.

(Study Session 6, Module 20.5, LOS 20.f)

Related Material

[SchweserNotes - Book 2](#)

143. (C) 1.33 20.8%

Explanation

Total asset turnover = sales / average assets = 5,000,000 / 3,750,000 = 1.33

Return on equity = net income / average equity

Net income = EBIT - interest - taxes = 800,000 - 160,000 - 256,000 = 384,000

ROE = 384,000 / 1,850,000 = 20.8%

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

[SchweserNotes - Book 2](#)

144. (B) 30%.

Explanation

Operating profit margin = (EBIT / net sales) = (\$150,000 / \$500,000) = 30%

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

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145. (B) gross profit margin increased in 20X1 but net profit margin decreased.

Explanation

Royal's gross profit margin (gross profit / sales) was higher in 20X1 (34 / 82 = 41.5%) than in 20X0 (31 / 78 = 39.7%), but net profit margin (earnings after taxes / sales) declined from 7 / 78 = 9.0% in 20X0 to 6 / 82 = 7.3% in 20X1.

(Study Session 6, Module 20.3, LOS 20.c)

Related Material

[SchweserNotes - Book 2](#)

146. (C) result in deferred tax assets or liabilities are called temporary differences.

Explanation

Temporary differences between taxable income (for tax reporting) and pretax income (for financial statement reporting) result in deferred tax assets or liabilities. Permanent differences result in a company's effective tax rate being different from the statutory tax rate. There is no time limit on temporary differences to reverse.

(Study Session 7, Module 23.5, LOS 23.f)

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147. (B) 95 days of sales outstanding.

Explanation

Receivables turnover = $\$1,000,000 / \$260,000 = 3.840$

Days of sales outstanding = $365 / 3.840 = 95.05$ days.

Inventory turnover = $\$800,000 / \$400,000 = 2$

Days of inventory on hand = $365 / 2 = 182.5$ days.

Payables turnover ratio = $\$800,000 / \$600,000 = 1.333$.

Number of days of payables = $365 / 1.333 = 273.82$ days.

(Study Session 6, Module 20.2, LOS 20.b)

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148. (C) 53 days.

Explanation

Cash conversion cycle = days of sales outstanding + days of inventory on hand - number of days of payables = $37 + 46 - 30 = 53$ days.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

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149. (B) \$40,000.

Explanation

The traditional DuPont system is given as:

$$\text{ROE} = (\text{net profit margin})(\text{asset turnover})(\text{leverage ratio})$$

Solving for the net profit margin yields:

$$0.12 = (\text{net profit margin}) \times (2) \times (1.5)$$

$$0.04 = (\text{net profit margin})$$

Recognizing that the net profit margin is equal to net income / revenue we can substitute that relationship into the above equation and solve for net income:

$0.04 = \text{net income} / \text{revenue} = \text{net income} / \$1,000,000$

$\$40,000 = \text{net income.}$

(Study Session 6, Module 20.4, LOS 20.d)

Related Material

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150. (C) 5.81%.

Explanation

$\text{ROE} = \text{profit margin} \times \text{asset turnover} \times \text{A/E} = 0.08 \times 1.2 \times 1.1 = 0.1056$
 $\text{RR} = (1 - 0.45) = 0.55$

$g = \text{ROE} \times \text{RR} = 0.1056 \times 0.55 = 0.0581$

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

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

Explanation

Undistributed profits from a subsidiary do not require the creation of a deferred tax liability under U.S. GAAP if the subsidiary meets the indefinite reversal criterion. For IFRS, there are circumstances where a DTL is not created but the test for this treatment is not called or equivalent to the indefinite reversal criterion detailed in U.S. GAAP.

(Study Session 7, Module 23.5, LOS 23.j)

Related Material

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152. (C) increase by \$15,000.

Explanation

$\text{Straight-line depreciation per financial reports} = 500,000 / 10 = \$50,000$

$\text{Tax depreciation} = 500,000 / 5 = \$100,000$

$\text{Temporary difference} = 100,000 - 50,000 = \$50,000$

$\text{Deferred tax liability will increase by } \$50,000 \times 30\% = \$15,000$

(Study Session 7, Module 23.3, LOS 23.d)

Related Material

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153. (B) 76.7 days.

Explanation

Average collection period = 365 / receivables turnover

Receivables turnover = sales / average receivables = 3,000 / 630 = 4.76

Average receivables collection period = 365 / 4.76 = 76.65

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

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154. (C) 7.35%.

Explanation

ROE = tax burden x interest burden x EBIT margin x asset turnover x financial leverage
 tax burden = net income/EBT

EBT = EBIT - I = 2,000,000 - 900,000 = 1,100,000

net income = (EBT)(1-t) = (1,100,000)(1 - 0.35) = 715,000

tax burden = 715,000/1,100,000 = 0.65

interest burden = EBT/EBIT = 1,100,000/2,000,000 = 0.55

EBIT margin = EBIT/revenue = 2,000,000/16,000,000 = 0.125

asset turnover = revenue/total assets = 16,000,000/12,300,000 = 1.301

financial leverage = total assets/total equity = 12,300,000/7,000,000 = 1.757

ROE = 0.65 x 0.55 x 0.125 x 1.301 x 1.757 = 0.1021

Alternatively, ROE = [(EBIT - I)(1-t)]/equity = [(2,000,000 - 900,000)(1 - 0.35)]/7,000,000 = 0.1021

Sustainable growth = ROE (1 - dividend payout rate) = 0.1021 x 0.72 = 7.35%.

(Study Session 6, Module 20.5, LOS 20.e)

Related Material

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155. (B) inventory.

Explanation

Current ratio = current assets / current liabilities

Quick ratio = (current assets - inventories) / current liabilities

Marketable securities are included among current assets in both ratios. Neither ratio considers non-current assets.

(Study Session 6, Module 20.2, LOS 20.b)

Related Material

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156. (B) sporadic in nature, and the analyst should try to identify the termination date and determine if taxes will be payable at that time.

Explanation

As the name suggests, a tax holiday is usually a temporary exemption from having to pay taxes in some tax jurisdiction. Because of the temporary nature, the key issue for the analyst is to determine when the holiday will terminate, and how the termination will affect taxes payable in the future.

(Study Session 7, Module 23.5, LOS 23.i)

Related Material

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157. (C) 80.38 days.

Explanation

The cash conversion cycle = average receivables collection period + average inventory processing period - payables payment period. The average receivables collection period = $365 / \text{average receivables turnover}$ or $365 / 10.5 = 34.76$. The average inventory processing period = $365 / \text{inventory turnover}$ or $365 / 4 = 91.25$. The payables payment period = $365 / \text{payables turnover ratio} = 365 / 8 = 45.63$. Putting it all together: cash conversion cycle = $34.76 + 91.25 - 45.63 = 80.38$.

(Study Session 6, Module 20.2, LOS 20.b)

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158. (B) decreases by approximately 3 days.

Explanation

Cash conversion cycle (CCC) = days of sales outstanding + days of inventory on hand - number of days of payables. Days of sales outstanding = $365 / \text{receivables turnover} = 365 / 11 = 33.18$; $365 / 12 = 30.42$. This means the CCC decreases by 2.76 days.

For Further Reference:

(Study Session 6, Module 20.2, LOS 20.b)

CFA® Program Curriculum, Volume 3, page 197

Related Material

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