

## Solution

- A. Incorrect. The company's reports are high quality, but the delay in reporting impairs their usefulness somewhat. The reporting is still better than biased reporting.
- B. Incorrect. This is an example of decision-useful information about a result that may not be sustainable. Reporting is not of the highest quality, but is better than biased reporting.
- C. **Correct.** Combining the results from two segments is an example of biased reporting, which falls in the middle of the quality spectrum. It is difficult to interpret the profitability of each segment when their results are combined.

## Financial Statement Analysis

- describe a spectrum for assessing financial reporting quality

## Solution

- A. Incorrect because aggressive accounting is a biased choice. Biased accounting choices are higher in quality than earnings management on the spectrum of GAAP conforming financial reports.
- B. Correct.** Earnings management represents deliberate actions to influence reported earnings and their interpretation. The distinction between earnings management and biased choices is subtle and, primarily, a matter of intent.
- C. Incorrect because conservative accounting is a biased choice. Biased accounting choices are higher in quality than earnings management on the spectrum of GAAP conforming financial reports.

## Financial Statement Analysis

- describe a spectrum for assessing financial reporting quality

## Solution

- A. **Correct.** The exclusion of recurring items from non-GAAP financial measures is strictly prohibited by the SEC and should raise concerns that additional analysis is needed.
- B. Incorrect. If a company uses non-GAAP measures in its SEC filings, it must display the comparable GAAP measure with equal prominence and provide a reconciliation between the two.
- C. Incorrect. LIFO reporting provides sufficient information in the Notes to convert from LIFO to FIFO so a formal change should not alter an analyst's opinion about the company.

## Financial Statement Analysis

- describe presentation choices, including non-GAAP measures, that could be used to influence an analyst's opinion

- A. Incorrect. IFRS does not allow classification of impairment losses as anything other than an operating cash flow.
- B. Incorrect. IFRS allows classification of dividends paid as either an operating or a financing cash flow. However, when dividends paid is shown as an operating cash flow, reported operating cash flows are lower.
- C. Correct.** IFRS allows the classification of interest expense as either an operating or a financing cash flow. When interest expense is shown as a financing cash flow, reported operating cash flows are higher.

## Financial Statement Analysis

- describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items

- A. **Correct** because both a low availability of substitutes and low bargaining power of buyers would improve a company's pricing power.
- B. Incorrect because a high degree of rivalry would offset the positive affect of a low threat of substitutes.
- C. Incorrect because a high availability of substitutes would act to offset the positive affect of low bargaining power of buyers.

## Financial Statement Analysis

- explain how the competitive position of a company based on a Porter's five forces analysis affects prices and costs

## Solution

- A. Incorrect. Rationalization takes place after the low-quality reporting act has taken place and is a psychological process used by individuals to justify their actions. Poor internal controls are not a psychological process.
- B. Correct.** Poor internal controls provide opportunities for errors or fraud to be incorporated in financial reporting without being detected.
- C. Incorrect. Motivation results from personal pressures or corporate pressures to report on a low-quality basis. Poor internal controls provide the vehicle through which low-quality reporting can be concealed, not the motivation for it.

## Financial Statement Analysis

- describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports

## Solution

- A. **Correct** because conservatism bias is a bias in which people maintain their prior views or forecasts by inadequately incorporating new information.
- B. Incorrect because overconfidence bias occurs when people demonstrate unwarranted faith in their own abilities.
- C. Incorrect because representative bias refers to the tendency to classify information based on past experiences and known classifications.

## Financial Statement Analysis

- explain how behavioral factors affect analyst forecasts and recommend remedial actions for analyst biases

- A. Incorrect because normalized earnings remove the impact of temporary factors and unusual events such as acquisitions.
- B. Correct** because normalized earnings are the expected level of mid-cycle earnings for a company in the absence of any unusual or temporary factors that affect profitability.
- C. Incorrect because normalized earnings are based on mid-cycle earnings, not peak-year earnings.

## Financial Statement Analysis

- explain considerations in the choice of an explicit forecast horizon and an analyst's choices in developing projections beyond the short-term forecast horizon

- A. Incorrect because Porter's five forces framework and similar analytical tools can help analysts assess the relative profit potential of a company by helping analysts estimate whether profit margins are likely to be relatively high or low (relative to historical profit margins and relative to competing companies).
- B. Incorrect because Porter's five forces framework and similar analytical tools can help analysts assess the relative profit potential of a company by helping analysts estimate whether profit margins are likely to be relatively high or low (relative to historical profit margins and relative to competing companies).
- C. **Correct** because Porter's five forces framework and similar analytical tools can help analysts assess the relative profit potential of a company by helping them understand the company's industry and its position within that industry. Understanding the industry and competitive contexts of a company helps analysts estimate whether, for example, sales growth is likely to be relatively high or low (relative to history, relative to the overall growth in the economy or a sector, and/or relative to competing companies) and whether profit margins are likely to be relatively high or low (relative to historical profit margins and relative to competing companies).

## Financial Statement Analysis

- explain how the competitive position of a company based on a Porter's five forces analysis affects prices and costs

- A. Incorrect because it computes the gross profit margin as cost of sales / sales. Current gross profit margin is 25% ( $300 / 1,200$ ) and the forecasted gross profit margin is 24.1% ( $312 / 1,296$ ) a decrease of approximately 1%.
- B. **Correct** because the gross profit for the current year is 900 ( $=1,200 - 300$ ), therefore the current gross profit margin is 75%. If sales increase by 8% (to 1,296) and cost of sales increase by 4% (to 312), the forecasted gross profit is 984 ( $= 1,296 - 312$ ), and the forecasted gross profit margin is 75.9%. This is an increase of approximately 1% ( $= 75.9\% - 75\%$ ).
- C. Incorrect because it assumes the starting values have the same base and takes the difference in the growth rates;  $4\% = \text{sales growth} - \text{cost of sales growth} = 8\% - 4\%$ .

## Financial Statement Analysis

- demonstrate the development of a sales-based pro forma company model

- A. Incorrect because the impact of higher prices on volume depends on the price elasticity of demand (i.e., how the quantity demanded varies with price). Since volumes will decline, cost of goods sold will also decline.
- B. Correct** because the impact of higher prices on volume depends on the price elasticity of demand (i.e., how the quantity demanded varies with price). Price elasticity of demand gives the impact to volume, and not total revenues, for a given level of price increases. Furthermore, Analyst A expects price elasticity of 0.8, indicating that volume will fall by 8 percent given the 10 percent retail price increase.
- C. Incorrect because the impact of higher prices on volume depends on the price elasticity of demand (i.e., how the quantity demanded varies with price). Price elasticity of demand gives the impact to volume, and not total revenues, for a given level of price increases.

## Financial Statement Analysis

- explain how to forecast industry and company sales and costs when they are subject to price inflation or deflation

## Solution

- A. **Correct** because share repurchases decrease the number of shares outstanding. A decrease in the number of shares outstanding will raise the EPS all things being equal.
- B. Incorrect because a secondary stock issuance increases the number of shares outstanding. An increase in the number of shares outstanding will decrease the EPS all things being equal.
- C. Incorrect because an increase in equity-based compensation increases the number of shares outstanding. An increase in the number of shares outstanding will decrease the EPS all things being equal.

## Financial Statement Analysis

- demonstrate the development of a sales-based pro forma company model

- A. **Correct** as U.S. GAAP prohibit the reversal of write-downs.
- B. Incorrect because this is the reversal under IFRS. Inventories shall be measured (and carried on the balance sheet) at the lower of cost and net realizable value. Reversal (limited to the amount of the original write-down) is required for a subsequent increase in value of inventory previously written down. The reversal of any write-down of inventories is recognized as a reduction in cost of sales (reduction in the amount of inventories recognized as an expense). The write-down in Year 1 is equal to €5 million (€65 cost – €60 net realizable value). The subsequent reversal is limited to the original €5 million write-down. Under U.S. GAAP, reversal of a write-down is prohibited.
- C. Incorrect and is the amount of the reversal allowed if the candidate incorrectly calculated the initial write-down as €7 million (€65 cost – €58 current replacement cost) under IFRS. This is also the correct initial write-down under U.S. GAAP, assuming inventories are measured using LIFO or retail inventory methods. Also, it is the amount by which the net realizable value exceeds carrying value at 31 December Year 2. However, under U.S. GAAP, reversal of a write-down is prohibited.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

## Solution

A. **Correct** because £3,000,000 net income would need to be adjusted for accrued income/expense derived from the change in accounts receivable and accounts payable. The increase in accounts receivable is subtracted from net income and the decrease in accounts payable is also subtracted from net income.

Change in cash = Net Income – increase in Accounts Receivable – decrease in Accounts Payable:

$$\text{Change in cash} = \text{£3,000,000} - \text{£2,000,000} - \text{£3,000,000} = -\text{£2,000,000}.$$

$$\text{Ending cash balance} = 2011 \text{ ending cash balance} + \text{change in cash} = \text{£10,000,000} - \text{£2,000,000} = \text{£8,000,000}.$$

B. Incorrect because, although net income is adjusted for accrued income/expense derived from changes in accounts receivable and accounts payable, it reverses the adjustment to accounts receivable. As such, an increase in accounts receivable is incorrectly added to net income:

Change in cash = Net Income - decrease in/+ increase in Accounts Receivable - decrease in/+ increase in Accounts Payable:

$$\text{Change in cash} = \text{£3,000,000} + \text{£2,000,000} - \text{£3,000,000} = \text{£2,000,000}.$$

$$\text{Ending cash balance} = 2011 \text{ ending cash balance} + \text{change in cash} = \text{£10,000,000} + \text{£2,000,000} = \text{£12,000,000}.$$

C. Incorrect because, although net income is adjusted for accrued income/expense derived from changes in accounts receivable and accounts payable, it reverses the adjustment to accounts receivable and accounts payable. As such, an increase in accounts receivable is incorrectly added to net income and a decrease to accounts payable is incorrectly added to net income:

Change in cash = Net Income - decrease in/+ increase in Accounts Receivable + decrease in/- increase in Accounts Payable:

$$\text{Change in cash} = \text{£3,000,000} + \text{£2,000,000} + \text{£3,000,000} = \text{£8,000,000}.$$

$$\text{Ending cash balance} = 2011 \text{ ending cash balance} + \text{change in cash} = \text{£10,000,000} + \text{£8,000,000} = \text{£18,000,000}.$$

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

- A. **Correct** because €600 million represents the costs incurred during the development phase which should be capitalized. Costs incurred in the development stage can be capitalized as intangible assets if certain criteria are met, including technological feasibility, the ability to use or sell the resulting asset, and the ability to complete the project.
- B. Incorrect because €900 million represents the costs incurred during the research phase. IFRS require that expenditures on research (or during the research phase of an internal project) be expensed rather than capitalized as an intangible asset.
- C. Incorrect because €1,500 million is the total costs incurred in the research and the development phases. It includes the €900 million costs incurred in the research phase which should be expensed. Only the €600 million incurred during the development phase should be capitalized.

## Financial Statement Analysis

- compare the financial reporting of the following types of intangible assets: purchased, internally developed, and acquired in a business combination

- A. Incorrect because a relatively high receivables turnover ratio (and commensurately low DSO) might indicate highly efficient credit and collection.
- B. **Correct** because a relatively high receivables turnover ratio (and commensurately low DSO) might indicate highly efficient credit and collection.
- C. Incorrect because a low DOH may suggest a firm is efficient at selling its inventory, but it does not measure how long it takes it to collect from its sales. The number of DSO represents the elapsed time between a sale and cash collection, reflecting how fast the company collects cash from customers to whom it offers credit. A relatively high receivables turnover ratio (and commensurately low DSO) might indicate highly efficient credit and collection.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because regardless of the originating source of the deferred tax liability, all changes in deferred tax liabilities will either be added back or subtracted from net income under the indirect method of reporting cash flow from operations.
- B. Incorrect because an increase in deferred tax liability would be an addition to net income under the indirect method of reporting cash flow from operations.
- C. **Correct** because a decrease in deferred tax liability would be subtracted from net income under the indirect method of reporting cash flow from operations.

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

## Solution

- A. **Correct** because **activity ratios** measure how efficiently a company performs day-to-day tasks, such as the collection of receivables and management of inventory.
- B. Incorrect because **solvency ratios** measure a company's ability to meet long-term obligations. Subsets of these ratios are also known as "leverage" and "long-term debt" ratios.
- C. Incorrect because **profitability ratios** measure the company's ability to generate profits from its resources (assets).

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because a disclaimer of opinion occurs when auditors are unable to issue an opinion.
- B. Incorrect because a qualified opinion (rather than a disclaimer of opinion) would be appropriate in the case of some scope limitation or an exception to accounting standards.
- C. Incorrect because an adverse opinion (rather than a disclaimer of opinion) would be appropriate if the auditor determines that financial statements materially depart from accounting standards and are not fairly presented.

## Financial Statement Analysis

- describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports

## Solution

- A. **Correct** because a relatively high receivables turnover ratio (and commensurately low DSO) might indicate highly efficient credit and collection.
- B. Incorrect because a relatively high receivables turnover ratio (and commensurately low DSO) might indicate highly efficient credit and collection.
- C. Incorrect because the number of days of payables reflects the average number of days the company takes to pay its suppliers and is not related to account receivables or the efficiency of the company's credit or collections policies.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because a vertical common-size income statement divides each income statement item by revenue. Gross profit is the amount of revenue available after subtracting the costs of delivering goods or services. Accordingly, based only on this information, under vertical common-size analysis, selling, general, and administrative expenses can be expressed as = Selling, general, and administrative expenses / Revenue = Selling, general, and administrative expenses / (Gross profit + Cost of sales) = 30 / (100 + 150); or = 30 / 250 = 12%.
- B. Incorrect because it expresses selling, general, and administrative expenses as a percentage of Cost of sales. Consequently, Selling, general, and administrative expenses / Cost of sales = 30 / 150 = 20%.
- C. Incorrect because it expresses selling, general, and administrative expenses as a percentage of Gross profit. Consequently, Selling, general, and administrative expenses / Gross profit = 30 / 100 = 30%.

## Financial Statement Analysis

- evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

- A. Incorrect because gain on sale of assets is a non-operating item that is included in net income calculation. Therefore, gain on sale of assets must be subtracted from (not added back to) net income when preparing a cash flow statement under the indirect method.
- B. **Correct** because amortization of a discount (premium) is a non-cash item and thus, apart from its effect on taxable income, has no effect on cash flow. In the section of the statement of cash flows that reconciles net income to operating cash flow, amortization of a discount (premium) is added back to (subtracted from) net income.
- C. Incorrect because a decrease in deferred tax liability occurs when accounting tax expense is lower than the amount of cash paid for income taxes. Therefore, the amount of decrease must be subtracted from net income when preparing the cash flow statement under the indirect method.

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

- A. Incorrect because an increase in inventory increases purchases from suppliers compared to cost of goods sold. To determine purchases from suppliers, cost of goods sold is adjusted for the change in inventory. If inventory increased during the year, then purchases during the year exceeded cost of goods sold, and vice versa.
- B. **Correct** because an increase in accounts payable means that less was paid than was purchased from suppliers. If accounts payable increased during the year, then purchases on an accrual basis would be higher than they would be on a cash basis, and vice versa.
- C. Incorrect because an increase in accounts receivable means that less was collected than was sold. To determine the approximate cash receipts from its customers, it is necessary to adjust this revenue amount by the net change in accounts receivable for the year. If accounts receivable increase during the year, revenue on an accrual basis is higher than cash receipts from customers, and vice versa.

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

## Solution

- A. Incorrect because acquiring an intangible asset is an investing activity whereas internally developing an intangible asset can be a combination of operating and investing activity. Costs of acquiring intangible assets are classified as investing cash outflows. IFRS require that expenditures on research (or during the research phase of an internal project) be expensed rather than capitalised as an intangible asset. IFRS allow companies to recognise an intangible asset arising from development (or the development phase of an internal project) if certain criteria are met, including a demonstration of the technical feasibility of completing the intangible asset and the intent to use or sell the asset. Consequently, acquiring an intangible asset would result in lower operating cash outflows than internally developing the intangible asset (as the latter would result in increased operating cash outflows during the research phase).
- B. Incorrect because acquiring an intangible asset is an investing activity whereas internally developing an intangible asset can be a combination of operating and investing activities. On the statement of cash flows, costs of internally developing intangible assets are classified as operating cash outflows whereas costs of acquiring intangible assets are classified as investing cash outflows.
- C. **Correct** because acquiring an intangible asset is an investing activity whereas internally developing an intangible asset can be a combination of operating and investing activities. On the statement of cash flows, costs of internally developing intangible assets are classified as operating cash outflows whereas costs of acquiring intangible assets are classified as investing cash outflows. Costs of acquiring intangible assets are classified as investing cash outflows. IFRS require that expenditures on research (or during the research phase of an internal project) be expensed rather than capitalised as an intangible asset. IFRS allow companies to recognise an intangible asset arising from development (or the development phase of an internal project) if certain criteria are met, including a demonstration of the technical feasibility of completing the intangible asset and the intent to use or sell the asset.

## Financial Statement Analysis

- compare the financial reporting of the following types of intangible assets: purchased, internally developed, and acquired in a business combination

- A. Incorrect because an audit is based on a review of information provided by the company, not the auditor. Although audit opinions provide discipline for financial reporting quality, inherent limitations exist. An audit opinion is based on a review of information prepared by the company.
- B. Incorrect because an audit is based on sampling, not an exhaustive review of all transactions. Although audit opinions provide discipline for financial reporting quality, inherent limitations exist. An audit is based on sampling, and the sample might not reveal misstatements.
- C. **Correct** because although audit opinions provide discipline for financial reporting quality, inherent limitations exist. An “expectations gap” may exist between the auditor’s role and the public’s expectation of auditors. An audit is not typically intended to detect fraud; it is intended to provide assurance that the financial reports are fairly presented.

## Financial Statement Analysis

- describe mechanisms that discipline financial reporting quality and the potential limitations of those mechanisms

- A. Incorrect because it reduces net income by the common and preferred dividend amount. Basic EPS  $\neq$  (Net income – Common dividends – Preferred dividends) / (Weighted average number of shares outstanding) =  $(€80,000 - €16,000 - €10,000) / 150,000 = €0.36$ .
- B. **Correct** because Basic EPS = (Net income-Preferred dividends) / (Weighted average number of shares outstanding) =  $(€80,000 - €10,000) / 150,000 \approx €0.47$ .
- C. Incorrect because it uses the common shares outstanding at year end as the denominator. Basic EPS  $\neq$  (Net income-Preferred dividends) / (Common shares outstanding at year end) =  $(€80,000 - €10,000) / 130,000 \approx €0.54$ .

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

- A. **Correct** because an *adverse* audit opinion is issued when an auditor determines that the financial statements materially depart from accounting standards and are not fairly presented.
- B. Incorrect because a *qualified* audit opinion is one in which there is some scope limitation or exception to accounting standards. Exceptions are described in the audit report with additional explanatory paragraphs so that the analyst can determine the importance of the exception.
- C. Incorrect because a *disclaimer of opinion* occurs when, for some reason, such as a scope limitation, the auditors are unable to issue an opinion.

## Financial Statement Analysis

- describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports

- A. Incorrect because DSO was subtracted to derive CCC. Accordingly,  $CCC = DOH - DSO - \text{Number of days of payables} = 180 - 36 - 45 = 99 \text{ days}$ .
- B. **Correct** because Cash conversion cycle (CCC) =  $DOH + DSO - \text{Number of days of payables}$ .

$DOH = \text{Number of days in period} / \text{Inventory turnover} = 360/2 = 180 \text{ days}$ .

$DSO = \text{Number of days in period} / \text{Receivables turnover} = 360/10 = 36 \text{ days}$ .

$\text{Number of days of payables} = \text{Number of days in period} / \text{Payables turnover} = 360/8 = 45 \text{ days}$ .

Thus  $CCC = 180 + 36 - 45 = 171 \text{ days}$ .

- C. Incorrect because Number of days of payables was added to derive CCC. Accordingly,  $CCC = DOH + DSO + \text{Number of days of payables} = 180 + 36 + 45 = 261 \text{ days}$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because it reverses all signage and calculates Cash flow from operating activities = Net income – Decrease in working capital + Gain on retirement on debt =  $10,000 - 2,000 + 500 = 8,500$ .
- B. **Correct** because Cash flow from operating activities = Net income + Decrease in working capital – Gain on retirement on debt =  $10,000 + 2,000 - 500 = 11,500$ .
- C. Incorrect because it reverses the sign on gain on retirement on debt and calculates Cash flow from operating activities = Net income + Decrease in working capital + Gain on retirement on debt =  $10,000 + 2,000 + 500 = 12,500$ .

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

- A. Incorrect because correction of an error for a prior period is handled by restating the financial statements (including the balance sheet, statement of owners' equity, and cash flow statement) for the prior periods presented in the current financial statements. Thus, it uses the "full retrospective method," which requires companies to restate prior periods' results.
- B. Incorrect because changes in accounting estimates are handled prospectively, with the change affecting the financial statements for the period of change and future periods.
- C. **Correct** because at times, standard setters issue new standards that require companies to change accounting policies. Depending on the standard, companies may be permitted to adopt the standards prospectively (in the future) or retrospectively (restate financial statements as though the standard existed in the past) while the new revenue recognition standard also offered companies the option of using a "modified retrospective" method of adoption. Under the modified retrospective approach, companies were not required to revise previously reported financial statements. Instead, they adjusted opening balances of retained earnings (and other applicable accounts) for the cumulative impact of the new standard.

## Financial Statement Analysis

- describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies

- A. **Correct** because an upward revaluation is treated the same as the amount in excess of the reversal amount. In other words, if a revaluation initially increases the carrying amount of the asset class, the increase in the carrying amount of the asset class bypasses the income statement and goes directly to equity under the heading of revaluation surplus. The financial leverage ratio is the average total assets divided by average total equity. Increasing both the numerator (assets) and denominator (equity) by the same amount leads to a decline in the ratio. (Mathematically, when a ratio is greater than one, as in this case, an increase in both the numerator and the denominator by the same amount leads to a decline in the ratio).
- B. Incorrect because leverage is the average total assets divided by average shareholders' equity, increasing both the numerator (assets) and denominator (equity) by the same amount leads to a decline in the ratio. (Mathematically, when a ratio is greater than one, as in this case, an increase in both the numerator and the denominator by the same amount leads to a decline in the ratio). This is a distractor because one may think that increasing both the asset and equity by the same amount would result in the leverage ratio staying the same.
- C. Incorrect because leverage is the average total assets divided by average shareholders' equity, increasing both the numerator (assets) and denominator (equity) by the same amount leads to a decline in the ratio. (Mathematically, when a ratio is greater than one, as in this case, an increase in both the numerator and the denominator by the same amount leads to a decline in the ratio). Therefore, the leverage ratio would not increase.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

## Solution

- A. Incorrect because decrease in accounts receivable was deducted rather than added. Consequently, cash flow from operating activities = Net income – gain on sale of equipment – decrease in accounts receivable =  $143 - 20 - 38 = 85$ .
- B. **Correct** because changes in working capital accounts include increases and decreases in the current operating asset and liability accounts. To make the working capital adjustments under the indirect method, any increase in a current operating asset account is subtracted from net income and a net decrease is added to net income. When calculating operating cash flow under the indirect method, gain on sale of assets are subtracted from net income. Accordingly, cash flow from operating activities = Net income – gain on sale of equipment + decrease in accounts receivable =  $143 - 20 + 38 = 161$ .
- C. Incorrect because gain on sale of equipment was added rather than deducted from net income. Consequently, cash flow from operating activities = Net income + gain on sale of equipment + decrease in accounts receivable =  $143 + 20 + 38 = 201$ .

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

- A. Incorrect because companies that use specific identification, weighted average cost, or FIFO methods are more likely to incur inventory write-downs than companies that use the LIFO method.
- B. **Correct** because companies that use specific identification, weighted average cost, or FIFO methods are more likely to incur inventory write-downs than companies that use the LIFO method. Under the LIFO method, the oldest costs are reflected in the inventory carrying amount on the balance sheet. Given increasing inventory costs, the inventory carrying amounts under the LIFO method are already conservatively presented at the oldest and lowest costs. Thus, it is far less likely that inventory write-downs will occur under LIFO—and if a write-down does occur, it is likely to be of a lesser magnitude.
- C. Incorrect because companies that use specific identification, weighted average cost, or FIFO methods are more likely to incur inventory write-downs than companies that use the LIFO method.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. Incorrect because both trend and cross-sectional analyses are used to compare a company's financial ratios with those of its competitors. In general, the financial ratios of a company are compared with those of its major competitors (cross-sectional and trend analysis) and to the company's prior periods (trend analysis).
- B. Incorrect because both trend and cross-sectional analyses are used to compare a company's financial ratios with those of its competitors. In general, the financial ratios of a company are compared with those of its major competitors (cross-sectional and trend analysis) and to the company's prior periods (trend analysis).
- C. **Correct** because both types of analyses are used to compare a company's financial ratios with those of its competitors. In general, the financial ratios of a company are compared with those of its major competitors (cross-sectional and trend analysis) and to the company's prior periods (trend analysis).

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because Basic EPS = (Net income – Preferred dividends) / Weighted average number of shares outstanding =  $(\$210,000 - \$0) / [(50,000 \times 3/12) + (50,000 - 20,000) \times 9/12] \times 2] = \$210,000 / [(12,500 + 22,500) \times 2] = \$210,000 / 70,000 = \$3.00$ . If the number of shares of common stock increases as a result of a stock dividend or a stock split, the EPS calculation reflects the change retroactively to the beginning of the period.
- B. Incorrect because it uses the shares outstanding at year end instead of the weighted average number of shares outstanding . Consequently, basic EPS = (Net income – Preferred dividends) / Weighted average number of shares outstanding =  $(\$210,000 - \$0) / [(50,000 - 20,000) \times 2] = \$210,000 / 60,000 = \$3.50$ .
- C. Incorrect because the EPS calculation did not reflect the stock split retroactively to the beginning of the period. If the number of shares of common stock increases as a result of a stock dividend or a stock split, the EPS calculation reflects the change retroactively to the beginning of the period. Consequently, basic EPS = (Net income – Preferred dividends) / Weighted average number of shares outstanding =  $(\$210,000 - \$0) / [(50,000 \times 3/12) + (50,000 - 20,000) \times 3/12 + [(50,000 - 20,000) \times 2] \times 6/12] = \$210,000 / (12,500 + 7,500 + 30,000) = \$210,000 / 50,000 = \$4.20$ .

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

- A. Incorrect because common-size analysis of the income statement is performed by stating each line item on the income statement as a percentage of revenue. Company 1 spent 7% of its revenue for advertising expenses ( $531,020 / 7,586,000 = 0.07$ ) while Company 2 spent 8% of its revenue for advertising expenses ( $755,600 / 9,445,000 = 0.08$ ).
- B. Incorrect because although both companies spent the same dollar amounts for R&D expenses, the R&D expenses make up different percentages of sales revenue given that sales revenue differs (23.73% for Company 1 and 19.06% for Company 2), so proportionally, the companies did not spend equally.
- C. **Correct** because common-size analysis of the income statement can be performed by stating each line item on the income statement as a percentage of revenue. Accordingly, Company 1's gross profit margin =  $(7,586,000 - 3,413,700) \div 7,586,000 = 55\%$ , being higher than Company 2's gross profit margin of  $(9,445,000 - 4,533,600) \div 9,445,000 = 52\%$ .

## Financial Statement Analysis

- evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

## Solution

- A. Incorrect because deferred tax assets, rather than deferred tax liabilities arise when the tax base of an asset is greater than its carrying amount.
- B. Incorrect because deferred tax assets, rather than deferred tax liabilities arise when the carrying amount of a liability is greater than its tax base.
- C. **Correct** because deferred tax liabilities arise when a financial accounting income tax expense exceeds income taxes payable.

## Financial Statement Analysis

- contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income

- A. **Correct** because Cash paid to suppliers = Cost of goods sold + Increase in inventory – Increase in accounts payable =  $6,000 + 3,000 - 2,500 = 6,500$ .
- B. Incorrect because it excluded the Increase in accounts payable and calculated Purchases from suppliers instead of Cash paid to suppliers. The calculation thus becomes Cash paid to suppliers = Purchases from suppliers = Cost of goods sold + Increase in inventory =  $6,000 + 3,000 = 9,000$ .
- C. Incorrect because it added, rather than subtracted the Increase in accounts payable. The calculation thus becomes Cash paid to suppliers = Cost of goods sold + Increase in inventory + Increase in accounts payable =  $6,000 + 3,000 + 2,500 = 11,500$ .

## Financial Statement Analysis

- demonstrate the conversion of cash flows from the indirect to direct method

- A. Incorrect because the preferred dividends are subtracted from the numerator. Diluted EPS  $\neq$  (Net income – Preferred dividends) / (Weighted average number of common shares + New common shares issued at conversion) =  $(€3,000,000 - €400,000) / (4,250,000 + 800,000) = €0.5149 \approx €0.51$ .
- B. Incorrect because the 31 December number of common shares outstanding is used instead of the weighted average number of common shares during the calendar year. Diluted EPS  $\neq$  (Net income) / (31 December number of common shares outstanding + New common shares issued at conversion) =  $€3,000,000 / (4,500,000 + 800,000) = €0.5660 \approx €0.57$ .
- C. **Correct** because Diluted EPS = Net income / (Weighted average number of common shares + New common shares issued at conversion); and Weighted average number of common shares during the year =  $3,500,000 + 1,000,000 \times \frac{3}{4} = 4,250,000$ , which reflects the shares issued on April 1 which are outstanding for 9 of the 12 months of the year. New shares issued at conversion =  $400,000 \times 2 = 800,000$ . Diluted EPS =  $€3,000,000 / (4,250,000 + 800,000) = €3,000,000 / 5,050,000 = €0.5941 \approx €0.59$ . Basic EPS = (Net income – Preferred dividend) / Weighted average common shares =  $(€3,000,000 - €400,000) / 4,250,000 = €2,600,000 / 4,250,000 = €0.6118$ . The convertible preferred shares are not anti-dilutive, as €0.59 is less than basic EPS €0.6118. Thus the reported diluted EPS is €0.59.

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

- A. Incorrect because it has deducted the after-tax interest adjustment instead of adding it back. Accordingly, FCFF = CFO – Int(1 – Tax rate) – FCInv ; or = 80 – [10 × (1 – 0.20)] – 15 = 80 – 8 – 15 = 57.
- B. Incorrect because it assumed that interest expensed and paid was included in financing activities and no adjustment for Int(1 – Tax rate) has been made. Accordingly, FCFF = CFO – FCInv ; or = 80 – 15 = 65.
- C. **Correct** because FCFF can also be computed from cash flow from operating activities as FCFF = CFO + Int(1 – Tax rate) – FCInv. CFO represents cash flow from operating activities under US GAAP or under IFRS where the company has included interest paid in operating activities. Accordingly, FCFF = CFO + Int(1 – Tax rate) – FCInv; or = 80 + [10 × (1 – 0.20)] – 15 = 80 + 8 – 15 = 73.

## Financial Statement Analysis

- calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios

## Solution

- A. Incorrect because financial statements that are in compliance will earn an unqualified opinion.
- B. Incorrect because material departures from accounting standards will earn an adverse opinion.
- C. **Correct** because financial statements showing “scope limitation or exception to accounting standards” will earn a qualified opinion.

## Financial Statement Analysis

- describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports

## Solution

- A. **Correct** because common-size statements are an output of the “process data” phase of the financial statement analysis framework.
- B. Incorrect because analytical results, not common-size statements, are the output of the “analyze/interpret the processed data” phase.
- C. Incorrect because analytical reports and recommendations, not common-size statements, are outputs of the “develop and communicate conclusions and recommendations” phase.

## Financial Statement Analysis

- describe the steps in the financial statement analysis framework

## Solution

- A. Incorrect because Interest expense was not added. Accordingly, Ending interest payable = Beginning interest payable – Cash paid for interest = £45,000 – £15,000 = £30,000.
- B. **Correct** because Ending interest payable = Beginning interest payable + Interest expense – Cash paid for interest. Accordingly, Ending interest payable = Beginning interest payable + Interest expense – Cash paid for interest = £45,000 + £50,000 – £15,000 = £80,000.
- C. Incorrect because Cash paid for interest was not deducted. Accordingly, Ending interest payable = Beginning interest payable + Interest expense = £45,000 + £50,000 = £95,000.

## Financial Statement Analysis

- describe how the cash flow statement is linked to the income statement and the balance sheet

## Solution

- A. Incorrect because it subtracts out the entire interest portion as opposed to the net-of-tax interest amount: FCFF
- Interest paid = FCFE + Net debt repayment. Therefore,  $2,500 - 260 = 1,300 + \text{Net debt repayment}$ ; or Net debt repayment = 940.
- B. **Correct** because FCFF = Cash flow from operating activities ("CFO") + Interest paid (1 – Tax rate) – Capital expenditures ("FCInv"). In addition, FCFE = CFO – FCInv – Net debt repayment.

Rearranging FCFF: CFO – FCInv = FCFF – Interest paid (1 – Tax rate)

Rearranging FCFE: CFO – FCInv = FCFE + Net debt repayment

Therefore: FCFF – Interest paid (1 – Tax rate) = FCFE + Net debt repayment; or  $= 2,500 - [260 \times (1 - 40\%)] = 1,300 + \text{Net debt repayment}$ ; or  $2,344 = 1,300 + \text{Net debt repayment}$

Therefore, Net debt repayment =  $2,344 - 1,300 = 1,044$ .

- C. Incorrect because it assumes that interest paid is classified as a cash flow from financing activities and does not need to be added back to CFO. As such, FCFF = FCFE + Net debt repayment; or  $2,500 = 1,300 + \text{Net debt repayment}$ ; or Net debt repayment = 1,200.

## Financial Statement Analysis

- calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios

- A. **Correct** because deferred tax assets, which appear on the balance sheet, arise when an excess amount is paid for income taxes (taxable income higher than accounting profit).
- B. Incorrect because a deferred tax asset arises when the tax base of an asset exceeds its carrying amount. Differences between the tax base and the carrying amount also result in differences between accounting profit and taxable income. Deductible temporary differences result in a deferred tax asset when the tax base of an asset exceeds its carrying amount.
- C. Incorrect because deferred tax assets arise when the amount paid for taxes (taxes payable) exceeds the tax expense. A company's taxable income is the basis for its income tax payable (a liability) or recoverable (an asset), which is calculated on the basis of the company's tax rate and appears on its balance sheet. Deferred tax assets, which appear on the balance sheet, arise when an excess amount is paid for income taxes (taxable income higher than accounting profit) and the company expects to recover the difference during the course of future operations. Actual income taxes payable will thus exceed the financial accounting income tax expense (which is reported on the income statement and is determined based on accounting profit).

## Financial Statement Analysis

- contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income

- A. Incorrect because the interest expense for a lessee with an operating lease is lower compared to a finance lease (there is no interest expense under an operating lease). Under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a "right-of-use" (ROU) asset on its balance sheet, both equal to the present value of future lease payments. The following shows how the transaction [under IFRS] affects the financial statements: Interest expense on the lease liability and the amortization expense related to the ROU asset are reported separately on the income statement. The following shows how the [operating lease] transaction [under US GAAP] appears on the financial statements: Interest expense on the lease liability and the amortization expense related to the ROU asset are reported as a single line titled "lease expense" as an operating expense on the income statement. The interest and amortization components are not reported separately, nor are they grouped with other types of interest and amortization expense (e.g., interest on a bond, amortization of an intangible asset).
- B. **Correct** because for operating leases, the lessee recognizes a single lease expense and no depreciation expense; whereas under a finance lease the lessee records depreciation expense on the right-of-use asset. Under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a "right-of-use" (ROU) asset on its balance sheet, both equal to the present value of future lease payments. The following shows how the transaction [under IFRS] affects the financial statements: Interest expense on the lease liability and the amortization expense related to the ROU asset are reported separately on the income statement. The following shows how the [operating lease] transaction [under US GAAP] appears on the financial statements: Interest expense on the lease liability and the amortization expense related to the ROU asset are reported as a single line titled "lease expense" as an operating expense on the income statement. The interest and amortization components are not reported separately, nor are they grouped with other types of interest and amortization expense (e.g., interest on a bond, amortization of an intangible asset).
- C. Incorrect because financing cash outflow for a lessee with an operating lease is lower compared to a finance lease. Under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a "right-of-use" (ROU) asset on its balance sheet, both equal to the present value of future lease payments. The following shows how the transaction [under IFRS] affects the financial statements: The principal repayment component of the lease payment is reported as a cash outflow under financing activities on the statement of cash flows. The following shows how the [operating lease] transaction [under US GAAP] appears on the financial statements: The entire lease payment is reported as a cash outflow under operating activities on the statement of cash flows. The interest and principal repayment components are not reported separately.

## Financial Statement Analysis

- explain the financial reporting of leases from the perspectives of lessors and lessees

- A. Incorrect because for the common-size cash flow statement, there are two alternative approaches. The first approach is to express each line item of cash inflow (outflow) as a percentage of total inflows (outflows) of cash, and the second approach is to express each line item as a percentage of net revenue. Thus an inflow is stated either as a percentage of total inflows or total net revenues, not total assets.
- B. **Correct** because for the common-size cash flow statement, there are two alternative approaches. The first approach is to express each line item of cash inflow (outflow) as a percentage of total inflows (outflows) of cash, and the second approach is to express each line item as a percentage of net revenue.
- C. Incorrect because for the common-size cash flow statement, there are two alternative approaches. The first approach is to express each line item of cash inflow (outflow) as a percentage of total inflows (outflows) of cash, and the second approach is to express each line item as a percentage of net revenue. Thus an inflow is stated either as a percentage of total inflows or total net revenues, not net cash flows.

## Financial Statement Analysis

- analyze and interpret both reported and common-size cash flow statements

## Solution

A. **Correct** because disclosures are useful when analyzing a company. IFRS requires eight financial statement disclosures concerning inventory, three of which are:

- the accounting policies adopted in measuring inventories, including the cost formula (inventory valuation method) used;
- the amount of any reversal of any write-down that is recognised as a reduction in cost of sales in the period;
- the circumstances or events that led to the reversal of a write-down of inventories.

Inventory-related disclosures under US GAAP are very similar to the disclosures above, except that requirements for the second and third are not relevant because US GAAP do not permit the reversal of prior-year inventory write-downs. US GAAP also require disclosure of significant estimates applicable to inventories and of any material amount of income resulting from the liquidation of LIFO inventory.

B. **Incorrect** because disclosures are useful when analyzing a company. IFRS requires eight financial statement disclosures concerning inventory, three of which are:

- the accounting policies adopted in measuring inventories, including the cost formula (inventory valuation method) used;
- the amount of any reversal of any write-down that is recognised as a reduction in cost of sales in the period;
- the circumstances or events that led to the reversal of a write-down of inventories.

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C. **Incorrect** because disclosures are useful when analyzing a company. IFRS requires eight financial statement disclosures concerning inventory, three of which are:

- the accounting policies adopted in measuring inventories, including the cost formula (inventory valuation method) used;
- the amount of any reversal of any write-down that is recognised as a reduction in cost of sales in the period;
- the circumstances or events that led to the reversal of a write-down of inventories.

Inventory-related disclosures under US GAAP are very similar to the disclosures above, except that requirements for the second and third are not relevant because US GAAP do not permit the reversal of prior-year inventory write-downs. US GAAP also require disclosure of significant estimates applicable to inventories and of any material amount of income resulting from the liquidation of LIFO inventory.

## Financial Statement Analysis

- describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information

- A. Incorrect because as a result of the revaluations, the €2,500 ( $= €27,500 - €25,000$ ) increase in the value of the asset during the first year is recorded in the revaluation surplus account in equity, and the  $-€5,000$  ( $= €22,500 - €27,500$ ) decrease in fair value recorded in the second year is assumed to be applied only to the revaluation surplus account leading to a balance of  $-€2,500$  ( $= €2,500 - €5,000$ ).
- B. **Correct** because if a revaluation initially increases the carrying amount of the asset class, the increase in the carrying amount of the asset class bypasses the income statement and goes directly to equity under the heading of revaluation surplus. Any subsequent decrease in the asset's value first decreases the revaluation surplus and then goes to income. As a result, the €2,500 ( $= €27,500 - €25,000$ ) increase in the value of the asset during the first year is recorded in the revaluation surplus account in equity, and out of the  $-€5,000$  ( $= €22,500 - €27,500$ ) decrease in fair value recorded in the second year,  $-€2,500$  is used to decrease the revaluation account and the remaining  $-€2,500$  flows to the income statement. Therefore, the balance in the revaluation surplus account is zero.
- C. Incorrect because as a result of the revaluations, the €2,500 ( $= €27,500 - €25,000$ ) increase in the value of the asset during the first year is recorded in the revaluation surplus account in equity, and the  $-€5,000$  ( $= €22,500 - €27,500$ ) is applied only to the income statement and does not affect the revaluation surplus account.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. Incorrect because US GAAP prohibit the reversal of write-downs and not IFRS.
- B. Correct** because IFRS state that inventories shall be measured (and carried on the balance sheet) at the lower of cost and net realizable value. In each subsequent period, a new assessment of net realizable value is made. Reversal (limited to the amount of the original write-down) is required for a subsequent increase in value of inventory previously written down. The reversal of any write-down of inventories is recognized as a reduction in cost of sales (reduction in the amount of inventories recognized as an expense).

On 31 December of Year 1, Inventory is carried on the balance sheet at  $\min(\text{Cost}, \text{Net realizable value}) = \min(\text{€}100,000, \text{€}97,000) = \text{€}97,000$ .

The write down of inventory equals the Cost of inventory less the Net realizable value =  $\text{€}100,000 - \text{€}97,000 = \text{€}3,000$ .

On December 31 of Year 2, the net realizable value (€105,000) is higher than the previous level, exceeding also the cost of inventory. The reversal of any write-down of inventories is recognized as a reduction in cost of sales and is limited to the amount of the original write-down, meaning €3,000.

- C. Incorrect** because it computes the reversal of inventory write-down (which is recognized as a reduction in cost of sales) as the difference between the net realizable value at the next assessment date and its previous level ( $\text{€}105,000 - \text{€}97,000 = \text{€}8,000$ ) while the reversal of any write-down of inventories is limited to the amount of the original write-down.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

## Solution

A. Incorrect because it has included the EBIT Margin in the calculation instead of Net Profit Margin.

Accordingly, Total asset turnover = ROE / (EBIT Margin × Leverage); or = 10% / (5% × 2) = 1.0.

B. **Correct** because in accordance to the DuPont analysis for ROE, ROE = Net profit margin × Total asset turnover × Leverage. Thus, Total asset turnover = ROE / (Net profit margin × Leverage); or = 10% / (4% × 2) = 1.25 ≈ 1.3.

C. Incorrect because it included Interest burden. Accordingly, Total asset turnover = ROE / (Net profit margin × Leverage × Interest Burden); or = 10% / (4% × 2 × 85%) = 1.471 ≈ 1.5.

## Financial Statement Analysis

- demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components

- A. Incorrect because if purchase prices of inventory are decreasing, using the LIFO inventory valuation method will result in higher gross profit compared to other methods.
- B. Incorrect because if purchase prices of inventory are declining, using the LIFO method of inventory valuation method will result in a higher current ratio compared to other methods. In this scenario, the use of the LIFO method results in a higher ending inventory (current asset) compared to other methods. Therefore, the current ratio, defined as current assets divided by current liabilities will be higher as current assets (inventory) will be higher and current liabilities will not be affected by the choice of the inventory valuation method.
- C. **Correct** because if purchase prices of inventory are declining, using the LIFO method of inventory valuation will result in a higher ending inventory and a lower cost of sales compared to other inventory valuation methods. Inventory turnover is defined as cost of sales ÷ average inventory. Since cost of sales will be lower under LIFO as compared to FIFO and average inventory will be higher under LIFO as compared to FIFO in a period of declining unit costs, inventory turnover will be lower under LIFO than FIFO in a period of declining inventory unit costs.

## Financial Statement Analysis

- calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods

- A. Incorrect because in each subsequent period, a new assessment of net realisable value is made. Reversal (limited to the amount of the original write-down) is required for a subsequent increase in value of inventory previously written down. Reversals are not allowed for US GAAP, which would result in this answer. Inventory would be written down from 2,000 to 1,700 in Year 1, and the reversal in Year 2 would be limited to the original write-down of 300, bringing the value back to 2,000 at the end of Year 2.
- B. **Correct** because in each subsequent period, a new assessment of net realisable value is made. Reversal (limited to the amount of the original write-down) is required for a subsequent increase in value of inventory previously written down. Inventory would be written down from 2,000 to 1,700 in Year 1, and the reversal in Year 2 would be limited to the original write-down of 300, bringing the value back to 2,000 at the end of Year 2.
- C. Incorrect because in each subsequent period, a new assessment of net realisable value is made. Reversal (limited to the amount of the original write-down) is required for a subsequent increase in value of inventory previously written down. The incorrect answer is obtained by writing the inventory up to the Year 2 net realizable value.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. **Correct** because FIFO assumes that the oldest inventory items are sold first, leaving the most recently purchased inventory on the balance sheet. The carrying amount of inventories under FIFO will more closely reflect current replacement values because inventories are assumed to consist of the most recently purchased items. Companies typically record changes to inventory using either a periodic inventory system or a perpetual inventory system. Under either system, the allocation of goods available for sale to cost of sales and ending inventory is the same if the inventory valuation method used is either specific identification or FIFO.
- B. Incorrect because under LIFO, the most recently purchased inventory items are assumed to be sold first, so items included in the cost of goods sold more closely reflect current replacement value, however the balance sheet inventory will reflect prior period (lower, in this case) prices. The cost of sales under LIFO will more closely reflect current replacement value. Although the carrying amount of the ending inventory, however, may differ [compared to the periodic system] because the perpetual system will apply LIFO continuously throughout the year, the effect of increasing prices and quantities will result in a lower reported inventory on the balance sheet than current replacement values.
- C. Incorrect because under LIFO, the most recently purchased inventory items are assumed to be sold first, so items included in the cost of goods sold more closely reflect current replacement value, however the balance sheet inventory will reflect prior period (lower, in this case) prices. The cost of sales under LIFO will more closely reflect current replacement value. Although the carrying amount of the ending inventory, however, may differ [compared to the periodic system] because the perpetual system will apply LIFO continuously throughout the year, the effect of increasing prices and quantities will result in a lower reported inventory on the balance sheet than current replacement values.

## Financial Statement Analysis

- calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods

- A. Incorrect because an adjustment is permitted in all cases under IFRS. The only situation where the loss cannot be reversed is under US GAAP for an asset held for use. Under US GAAP the impairment loss would not be reversed remaining at €40,000.
- B. **Correct** because in recognizing the impairment loss in Year 1, carrying cost was reduced from €50,000 to €40,000, so an impairment loss of \$10,000 was reported. A reversal can only be taken for the previous carrying amount; not the full recoverable amount. Therefore with the reversal, carrying cost returns to its previous level of €50,000. Note that IFRS permit the reversal of impairment losses only. IFRS do not permit the revaluation to the recoverable amount if the recoverable amount exceeds the previous carrying amount.
- C. Incorrect because IFRS permit the reversal of impairment losses only. IFRS do not permit the revaluation to the recoverable amount if the recoverable amount exceeds the previous carrying amount. Previously, carrying cost was reduced from €50,000 to €40,000, so an impairment loss of €10,000 was reported. A reversal can only be taken for up to the previous carrying amount €50,000. As a result of the reversal  $\text{€}10,000 + \text{€}40,000 = \text{€}50,000$ . Therefore, the new carrying cost cannot increase to the full recoverable amount of €60,000.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

## Solution

- A. Incorrect because a write-down of inventory to its net realizable value would increase total asset turnover and decrease the current ratio.
- B. **Correct** because in the event that the value of inventory declines below the carrying amount on the balance sheet, the inventory carrying amount must be written down to its net realizable value. Frequently, rather than writing inventory down directly, an inventory valuation allowance account is used. The allowance account is netted with the inventory accounts to arrive at the carrying amount that appears on the balance sheet, and the loss (reduction in value) recognized as an expense on the income statement. Additionally, an inventory write-down reduces both profit and the carrying amount of inventory on the balance sheet and thus has a negative effect on profitability, liquidity, and solvency ratios. However, activity ratios (for example, inventory turnover and total asset turnover) will be positively affected by a write-down because the asset base (denominator) is reduced.

The **Total asset turnover ratio** = Revenue / Average total assets. Accordingly, as the asset base (i.e., denominator) is reduced by an inventory write-down (and revenue is not impacted), total asset turnover will increase.

The **Current ratio** = Current assets / Current liabilities. Accordingly, as the inventory (i.e., numerator) is reduced by an inventory write-down (and current liabilities are not impacted), the current ratio will decrease.

Note: "All else being equal" has been added to the stem to avoid potential tax (liability) impacts.

- C. Incorrect because a write-down of inventory to its net realizable value would increase total asset turnover and decrease the current ratio.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. Incorrect because IFRS allow companies to classify interest expense as either an operating activity or a financing activity. This is the treatment of dividends paid under US GAAP. US GAAP classify dividends paid to stockholders as a financing activity.
- B. Incorrect because IFRS allow companies to classify interest expense as either an operating activity or a financing activity. This is the treatment of interest paid under US GAAP. US GAAP classify interest expense as an operating activity, even though the principal amount of the debt issued is classified as a financing activity.
- C. **Correct** because IFRS allow more flexibility in the reporting of such items as interest paid. IFRS allow companies to classify interest expense as either an operating activity or a financing activity.

## Financial Statement Analysis

- contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)

- A. Incorrect because the Inventory turnover in Year 2 was calculated based on the average of Net realizable value of Inventory for the 2 years. Consequently, Inventory turnover in Year 2 = Cost of sales or cost of goods sold / Average inventory =  $600 / [(120 + 80) / 2] = 600 / 100 = 6$ .
- B. Incorrect because the Inventory turnover in Year 2 was calculated based on the average of Cost of Inventory for the 2 years. Consequently, Inventory turnover in Year 2 = Cost of sales or cost of goods sold / Average inventory =  $600 / [(100 + 90) / 2] = 600 / 95 \approx 6.3$ .
- C. **Correct** because IFRS state that inventories shall be measured (and carried on the balance sheet) at the lower of cost and net realisable value. Accordingly, Year 1 inventory = 80 (being lower of 90 and 80) and Year 2 inventory = 100 (being lower of 100 and 120). Inventory turnover in Year 2 = Cost of sales or cost of goods sold / Average inventory =  $600 / [(100 + 80) / 2] = 600 / 90 \approx 6.7$ .

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. Incorrect because it assumes the company reports under US GAAP and uses the LIFO inventory valuation method; and takes the lower limit of market value (i.e., net realizable value less a normal profit margin) instead of current replacement cost. Accordingly,  $\text{Min}(\text{Cost}; \text{Net realizable value less a normal profit margin}) = \text{Min}(3,600; 3,100) = 3,100$ .
- B. Incorrect because it assumes the company reports under US GAAP and uses the LIFO inventory valuation method. Under US GAAP, for inventories measured using LIFO and retail inventory methods, market value is defined as current replacement cost [3,200] subject to upper and lower limits. Market value cannot exceed net realizable value [3,300] (selling price less reasonably estimated costs of completion and disposal). The lower limit of market value is net realizable value less a normal profit margin [3,100]. Accordingly,  $\text{Min}(\text{Cost}; \text{Market value}) = \text{Min}(3,600; 3,200) = 3,200$ .
- C. **Correct** because IFRS state that inventories shall be measured (and carried on the balance sheet) at the lower of cost and net realizable value. Accordingly,  $\text{Min}(\text{Cost}; \text{Net realizable value}) = \text{Min}(3,600; 3,300) = 3,300$ .

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. **Correct** because for lessees, there are lease accounting exemptions for certain lease contracts: If its term is 12 months or less (IFRS and US GAAP) or it is for a “low-value asset,” up to \$5,000 in sales price (IFRS only), then the lessee can elect to simply expense the lease payments on a straight-line basis. These exemptions are not available to lessors.
- B. Incorrect because under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a “right-of-use” (ROU) asset on its balance sheet, both equal to the present value of future lease payments.
- C. Incorrect because under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a “right-of-use” (ROU) asset on its balance sheet, both equal to the present value of future lease payments.

## Financial Statement Analysis

- explain the financial reporting of leases from the perspectives of lessors and lessees

## Solution

- A. Incorrect because it is only at the point when all performance obligations have been met except for payment that a receivable appears on the seller's balance sheet. According to the converged standards of revenue recognition, the five steps in recognizing revenue are:
1. Identify the contract(s) with a customer
  2. Identify the separate or distinct performance obligations in the contract
  3. Determine the transaction price
  4. Allocate the transaction price to the performance obligations in the contract
  5. Recognize revenue when (or as) the entity satisfies a performance obligation

While entering into or signing the contract would be covered by steps 1-4, step 5 is required to recognize revenue the entity will only recognize revenue when it is able to satisfy the performance obligation.

- B. **Correct** because it is only at the point when all performance obligations have been met except for payment that a receivable appears on the seller's balance sheet.
- C. Incorrect because it is only at the point when all performance obligations have been met except for payment that a receivable appears on the seller's balance sheet. If consideration is received in advance of transferring good(s) or service(s), the seller presents a contract liability. Consequently, the seller recognizes a contract liability, rather than a receivable.

## Financial Statement Analysis

- describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis

- A. Incorrect because it is the fair value of the asset if sold less costs to sell, which is the lower, not higher, of its fair value less costs to sell and its value in use. Under IFRS, the company would compare the carrying value (€20,000) with the higher of its fair value less costs to sell ( $€19,100 - €1,900 = €17,200$ ), and its value in use (€17,400). Under IFRS, the carrying value is \$17,400.
- B. **Correct** because it is the value of the asset in use. Under IFRS, the company would compare the carrying value (€20,000) with the higher of its fair value less cost to sell ( $€19,100 - €1,900 = €17,200$ ), and its value in use (€17,400). Under IFRS, the carrying value is €17,400.
- C. Incorrect because this is the carrying amount after impairment assessment under US GAAP: the carrying amount (€20,000) is compared with the undiscounted expected future cashflows (€22,000). The carrying amount is less than the undiscounted expected future cash flows, so the carrying amount is considered recoverable. The equipment would continue to be carried at €20,000.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. **Correct** because however, activity ratios (for example, inventory turnover and total asset turnover) will be positively affected by a write-down because the asset base (denominator) is reduced.
- B. Incorrect because an inventory write-down reduces both profit and the carrying amount of inventory on the balance sheet and thus has a negative effect on profitability, liquidity, and solvency ratios.
- C. Incorrect because an inventory write-down reduces both profit and the carrying amount of inventory on the balance sheet and thus has a negative effect on profitability, liquidity, and solvency ratios.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. **Correct** because if a deferred tax asset or liability resulted in the past, but the criteria of economic benefits is not met on the current balance sheet date, then, under IFRS, an existing deferred tax asset or liability related to the item will be reversed.
- B. Incorrect because if a deferred tax asset or liability resulted in the past, but the criteria of economic benefits is not met on the current balance sheet date, then, under IFRS, an existing deferred tax asset or liability related to the item will be reversed. Under US GAAP, a valuation allowance is established.
- C. Incorrect because it answers for a deferred tax liability (reported under US GAAP) that is not expected to reverse. The analyst should classify the deferred tax liability as debt if the liability is expected to reverse with subsequent tax payment. If the liability is not expected to reverse, there is no expectation of a cash outflow and the liability should be treated as equity.

## Financial Statement Analysis

- explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis

A. **Correct** because if revenue reported using accrual accounting is higher than the cash actually collected, the result will typically be an increase in accounts receivable. Also, Beginning accounts receivable Plus: Revenues Minus: Cash collected from customers Equals: Ending accounts receivable restated as:

Cash collected from customers = Beginning accounts receivable + Revenue – Ending accounts receivable; or =  
Revenue – Increase in accounts receivable =  $5,000 - 1,200 = 3,800$ .

B. Incorrect because it equals Revenue (5,000) or the Revenue – Change in cash balance [instead of Change in accounts receivable] =  $5,000 - (2,000 - 2,000) = 5,000 - 0 = 5,000$ .

C. Incorrect because it assumes Cash collected from customers = Revenue + Increase in accounts receivable =  $5,000 + 1,200 = 6,200$ .

## Financial Statement Analysis

- describe how the cash flow statement is linked to the income statement and the balance sheet

- A. **Correct** because IFRS require eight financial statement disclosures concerning inventory, including (i) the carrying amount of inventories carried at fair value less costs to sell; (ii) the amount of any reversal of any write-down that is recognised as a reduction in cost of sales in the period; and (iii) the circumstances or events that led to the reversal of a write-down of inventories. Inventory-related disclosures under US GAAP are very similar to the disclosures above, except that requirements (ii) and (iii) are not relevant because US GAAP do not permit the reversal of prior-year inventory write-downs.
- B. Incorrect because inventory-related disclosures under US GAAP are very similar to the disclosures under IFRS, except that requirement "the circumstances or events that led to the reversal of a write-down of inventories" is not relevant because US GAAP do not permit the reversal of prior-year inventory write-downs.
- C. Incorrect because inventory-related disclosures under US GAAP are very similar to the disclosures under IFRS, except that requirements "the amount of any reversal of any write-down that is recognized as a reduction in cost of sales in the period" is not relevant because US GAAP do not permit the reversal of prior-year inventory write-downs.

## Financial Statement Analysis

- describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information

## Solution

- A. **Correct** because in an environment of declining inventory unit costs and constant or increasing inventory quantities, FIFO (in comparison with weighted average cost or LIFO) will allocate a higher amount of the total cost of goods available for sale to cost of sales on the income statement and a lower amount to ending inventory on the balance sheet. Accordingly, because cost of sales will be higher under FIFO, a company's gross profit, or operating profit, and income taxes will be lower.
- B. Incorrect because in an environment of declining inventory unit costs and constant or increasing inventory quantities, FIFO (in comparison with weighted average cost or LIFO) will allocate a higher amount of the total cost of goods available for sale to cost of sales on the income statement and a lower amount to ending inventory on the balance sheet. Accordingly, because cost of sales will be higher under FIFO, a company's gross profit, or operating profit, and income taxes will be lower. In comparison, in a period of declining inventory unit costs, LIFO will result in higher inventory and lower cost of sales. Because cost declined over the period, LIFO had the highest ending inventory, the lowest cost of sales and the highest gross profit [compared to Specific identification, Weighted average cost and FIFO].
- C. Incorrect because in an environment of declining inventory unit costs and constant or increasing inventory quantities, FIFO (in comparison with weighted average cost or LIFO) will allocate a higher amount of the total cost of goods available for sale to cost of sales on the income statement and a lower amount to ending inventory on the balance sheet. Accordingly, because cost of sales will be higher under FIFO, a company's gross profit, or operating profit, and income taxes will be lower.

## Financial Statement Analysis

- calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods

- A. **Correct** because in contrast to changes in accounting policies (such as whether to expense the cost of employee stock options), companies sometimes make changes in accounting estimates (such as the useful life of a depreciable asset). Changes in accounting estimates are handled prospectively, with the change affecting the financial statements for the period of change and future periods. No adjustments are made to prior statements, and the adjustment is not shown on the face of the income statement.
- B. Incorrect because in contrast to changes in accounting policies (such as whether to expense the cost of employee stock options), companies sometimes make changes in accounting estimates (such as the useful life of a depreciable asset). Changes in accounting estimates are handled prospectively, with the change affecting the financial statements for the period of change and future periods. No adjustments are made to prior statements, and the adjustment is not shown on the face of the income statement.
- C. Incorrect because in contrast to changes in accounting policies (such as whether to expense the cost of employee stock options), companies sometimes make changes in accounting estimates (such as the useful life of a depreciable asset). Changes in accounting estimates are handled prospectively, with the change affecting the financial statements for the period of change and future periods. No adjustments are made to prior statements, and the adjustment is not shown on the face of the income statement.

## Financial Statement Analysis

- describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies

## Solution

- A. **Correct** because increasing the estimated salvage values is an example of a non-conservative (or aggressive) accounting policy. Depreciation expense is affected by another set of choices and estimates regarding the salvage value of the assets being depreciated. A salvage value of zero will always increase depreciation expense under any method compared with the choice of a non-zero salvage value.
- B. Incorrect because changing the depreciation method from straight-line to double-declining balance is an example of a conservative accounting policy change. Its effect will increase depreciation expense and thus will decrease earnings for the year. Another example of how choices and estimates can affect reported results lies in the selection of a depreciation method for allocating the cost of long-lived assets to accounting periods subsequent to their acquisition. A company's managers may choose to depreciate long-lived assets (1) on a straight-line basis, with each year bearing the same amount of depreciation expense; (2) using an accelerated method, with greater depreciation expense recognition in the earlier part of an asset's life; or (3) using an activity-based depreciation method, which allocates depreciation expense based on units of use or production.
- C. Incorrect because changing from weighted average to FIFO inventory valuation method in a period of declining inventory prices and quantities is an example of a conservative accounting policy change. In an environment of declining inventory unit costs and constant or increasing inventory quantities, FIFO (in comparison with weighted average cost or LIFO) will allocate a higher amount of the total cost of goods available for sale to cost of sales on the income statement and a lower amount to ending inventory on the balance sheet. Accordingly, because cost of sales will be higher under FIFO, a company's gross profit, operating profit, and income before taxes will be lower.

Assumptions about inventory cost flows provide another example of how accounting choices can affect financial reporting.

## Financial Statement Analysis

- explain the difference between conservative and aggressive accounting

- A. Incorrect because the cash received from the sale of equipment is calculated as Historical cost of equipment sold ( $\text{€}5,000,000$ ) – Depreciation expense ( $\text{€}4,000,000$ ) – Loss on sale ( $\text{€}250,000$ ) =  $\text{€}750,000$ .
- B. **Correct** because selling price (cash inflow) minus book value equals gain or loss on sale; therefore, gain or loss on sale plus book value equals selling price (cash inflow).

Accumulated depreciation on the equipment sold = Beginning balance accumulated depreciation + Depreciation expense – Ending balance accumulated depreciation; or =  $\text{€}7,000,000 + \text{€}4,000,000 - \text{€}8,000,000 = \text{€}3,000,000$ .

Book value of the equipment sold = Historical cost of equipment sold – Accumulated depreciation on equipment sold; or =  $\text{€}5,000,000 - \text{€}3,000,000 = \text{€}2,000,000$ . Cash received from sale of equipment = Book value of the equipment sold – Loss on sale =  $\text{€}2,000,000 - \text{€}250,000 = \text{€}1,750,000$ .

- C. Incorrect because the cash received from the sale of equipment is calculated as Historical cost of equipment sold ( $\text{€}5,000,000$ ) – Loss on sale ( $\text{€}250,000$ ) =  $\text{€}4,750,000$ .

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

- A. **Correct** because  $\text{ROA} = \text{Net income} / \text{Average total assets}$ ; or  $= 110 / 1,000 = 11\%$ .
- B. Incorrect because it assumes  $\text{ROA} = \text{Earnings before taxes} / \text{Total average assets}$ ; or  $= 130 / 1,000 = 13\%$ .
- C. Incorrect because it assumes  $\text{ROA} = \text{EBIT} / \text{Average total assets}$ ; or  $= 150 / 1,000 = 15\%$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because if the number of shares of common stock increases as a result of a stock dividend or stock split, the EPS calculation reflects the change retroactively to the beginning of the period. The denominator is the same for both the basic and diluted EPS calculations.
- B. **Correct** because the assumed exercise of the stock options would not change net income for the year (or preferred dividends). For calculating EPS, therefore, no change is made to the numerator. However, the denominator would be increased by the incremental number of shares issued as a result of the stock option being exercised.
- C. Incorrect because the numerator is increased by after tax interest on the convertible debt and the denominator is increased by the additional shares that were issued on conversion. Therefore, both the numerator and the denominator will change.

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

Solution

A. Incorrect because it has not weighted the number of shares outstanding during the year, and has instead applied the period-end balance along with the effect of the conversion. That is, weighted average number of shares outstanding is mistakenly calculated as 1,100,000 shares plus 200,000 which equals 1,300,000. Assuming all else equal,  $\$1,312,000 / 1,300,000 = \$1.01$ .

B. **Correct** because the basic EPS calculation highlights that the convertible bond is dilutive; that is, Basic EPS = (Net income – Preferred dividends) / (Weighted average number of shares outstanding), Where net income is \$1,200,000. There are no preferred dividends.

Weighted average number of shares outstanding is:

$$1,000,000 \times (3 \text{ months} \div 12 \text{ months}) = 250,000$$

$$1,100,000 \times (9 \text{ months} \div 12 \text{ months}) = 825,000$$

Weighted average number of shares outstanding equals  $250,000 + 825,000 = 1,075,000$  shares.

$$\text{Basic EPS} = \$1,200,000 / 1,075,000 = \$1.12.$$

Diluted EPS is calculated using the following formula:

(Net income + After-tax interest on convertible debt – Preferred dividends) / (Weighted average number of shares outstanding + Additional common shares that would have been issued at conversion) After-tax interest on convertible debt equals  $\$2,000,000 \times 8\% \times (1 - 30\%) = \$112,000$ . Therefore, computed diluted EPS =  $(\$1,200,000 + \$112,000) / (1,075,000 + 200,000) = \$1,312,000 / 1,275,000 = \$1.029$  which rounds to \$1.03.

C. Incorrect because the pre-tax cost of debt has been added back to net income. That is,  $\$2,000,000 \times 8\% = \$160,000$ , therefore applying net income of \$1,200,000 plus \$160,000 = \$1,360,000. Assuming all else equal:  $\$1,360,000 / 1,275,000 = \$1.067$  which rounds to \$1.07. If a candidate mistakenly uses net income alone in the numerator, with any of the denominators in the three Response Rationales, the answer will also be closest to this distractor.

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

## Solution

- A. Incorrect because it leaves out the financial leverage in the ROE calculation. It also is the ROA calculation. ROA = net profit margin × total asset turnover =  $3\% \times 1.8 = 5.4\%$ .
- B. Incorrect because it also includes the tax burden in the ROE calculation. The calculation becomes ROE = net profit margin × total asset turnover × financial leverage × tax burden =  $3.0\% \times 1.8 \times 1.5 \times 0.85 = 6.885\% \sim 6.9\%$ .
- C. **Correct** because ROE = net profit margin × total asset turnover × financial leverage =  $3.0\% \times 1.8 \times 1.5 = 8.1\%$ .

## Financial Statement Analysis

- demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components

A. Incorrect because the carrying amount after the impairment charge is equal to the recoverable amount.

Under IAS 36, an impairment loss is measured as the excess of carrying amount over the recoverable amount of the asset. The recoverable amount of an asset is defined as 'the higher of its fair value less costs to sell ( $9,000 - 200 = 8,800$ ) and its value in use ( $7,000$ ). Value in use is based on the present value of expected future cash flows.  $\text{Max}[(\text{FV-C}), \text{PVCF}] \Leftrightarrow \text{Max}[(8,800; 7,000)] = 8,800$ . In this case,  $7,000$  is the lower, and not the higher amount.

B. **Correct** because the carrying amount after the impairment charge is equal to the recoverable amount.

Under IAS 36, an impairment loss is measured as the excess of carrying amount over the recoverable amount of the asset. The recoverable amount of an asset is defined as 'the higher of its fair value less costs to sell ( $9,000 - 200 = 8,800$ ) and its value in use ( $7,000$ ). Value in use is based on the present value of expected future cash flows.  $\text{Max}[(\text{FV-C}), \text{PVCF}] \Leftrightarrow \text{Max}[(8,800; 7,000)] = 8,800$ .

C. Incorrect because it omits to subtract the cost of selling from the fair value. Accordingly, Recoverable amount =  $\text{Max}(\text{FV}; \text{PVCF})$ ; or =  $\text{Max}(9,000; 7,000) = 9,000$ .

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. Incorrect because this is a profitability ratio and ROE measures the return earned by a company on its equity capital, including minority equity, preferred equity, and common equity.  $\text{ROE} = \text{Net income} / \text{Average total equity}$
- B. Incorrect because this is an activity ratio (or asset utilization ratio or operating efficiency ratio), which measures how well a company manages various activities.  $\text{Fixed asset turnover} = \text{Revenue} / \text{Average net fixed assets}$ . The fixed assets turnover ratio measures how efficiently the company generates revenues from its investments in fixed assets.
- C. **Correct** because solvency ratios are primarily of two types. Debt ratios, the first type, focus on the balance sheet and measure the amount of debt capital relative to equity capital. Coverage ratios, the second type, focus on the income statement and measure the ability of a company to cover its debt payments. These ratios are useful in assessing a company's solvency and, therefore, in evaluating the quality of a company's bonds and other debt obligations.

Fixed charge coverage ratio =  $(\text{EBIT} + \text{Lease payments}) / (\text{Interest payments} + \text{lease payments})$ . A higher fixed charge coverage ratio implies stronger solvency, offering greater assurance that the company can service its debt (i.e., bank debt, bonds, notes, and leases) from normal earnings.

## Financial Statement Analysis

- describe relationships among ratios and evaluate a company using ratio analysis

- A. **Correct** because the accounting for lessors is substantially identical under IFRS and US GAAP. Under both accounting standards, lessors classify leases as finance or operating leases, which determines the financial reporting. At finance lease inception, the lessor recognizes a lease receivable asset equal to the present value of future lease payments and de-recognizes the leased asset, simultaneously recognizing any difference as a gain or loss.
- B. Incorrect because the accounting for lessors is substantially identical under IFRS and US GAAP. Under both accounting standards, lessors classify leases as finance or operating leases, which determines the financial reporting. The accounting treatment for an operating lease is different in that, because the contract is essentially a rental agreement, the lessor keeps the leased asset on its books and recognizes lease revenue on a straight-line basis.
- C. Incorrect because the accounting for lessors is substantially identical under IFRS and US GAAP. Under both accounting standards, lessors classify leases as finance or operating leases, which determines the financial reporting. The accounting treatment for an operating lease is different in that, because the contract is essentially a rental agreement, the lessor keeps the leased asset on its books and recognizes lease revenue on a straight-line basis.

## Financial Statement Analysis

- explain the financial reporting of leases from the perspectives of lessors and lessees

- A. **Correct** because the amount of the impairment loss will reduce the carrying amount of the asset on the balance sheet and will reduce net income on the income statement. Impairment charges reduce income but have no effect on revenue. Therefore, the impairment loss reduces the net profit margin where  $\text{Net profit margin} = \frac{\text{Net income}}{\text{Revenue}}$ .
- B. Incorrect because the Debt-to-equity ratio = Total debt/Total shareholders' equity. The amount of the impairment loss will reduce the carrying amount of the asset on the balance sheet and will reduce net income on the income statement. Impairment charges have no effect on debt but reduce equity. Therefore, the impairment loss increases the debt-to-equity ratio.
- C. Incorrect because the Working capital turnover = Revenue/Average working capital is unaffected by the impairment charge, ignoring income taxes. The amount of the impairment loss will reduce the carrying amount of the asset on the balance sheet and will reduce net income on the income statement. The impairment loss is a non-cash item and will not affect cash from operations.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

## Solution

A. Incorrect because it excludes Current portion of long-term interest-bearing debt in Total debts and calculates

Debt-to-capital ratio = Total debt/(Total debt + Total shareholders' equity) =  $(700 + 800)/(700 + 800 + 7500) = 1,500/9,000 = 0.167 \approx 17\%$ .

B. **Correct** because the Debt-to-capital ratio = Total debt/(Total debt + Total shareholders' equity) =  $(700 + 500 + 800)/(700 + 500 + 800 + 7,500) = 2,000/9,500 = 0.211 \approx 21\%$ .

C. Incorrect because it calculates the Debt-to-equity ratio = Total debt/Total shareholders' equity =  $(700 + 500 + 800)/7,500 = 2000/7,500 = 0.267 \approx 27\%$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because the entity will recognize revenue when it is able to satisfy the performance obligation by transferring control to the customer. Factor to consider when assessing whether the customer has obtained control of an asset at a point in time: Customer (not the entity/seller) has legal title.
- B. **Correct** because the entity (seller) will recognize revenue when it is able to satisfy the performance obligation by transferring control to the customer. Factor to consider when assessing whether the customer has obtained control of an asset at a point in time: Entity has a present right to payment.
- C. Incorrect because the entity (seller) will recognize revenue when it is able to satisfy the performance obligation by transferring control to the customer. Factor to consider when assessing whether the customer has obtained control of an asset at a point in time: Customer (not the entity/seller) has the significant risks and rewards of ownership.

## Financial Statement Analysis

- describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis

- A. **Correct** because the carrying amount is zero due to the full amount having been expensed for financial accounting, while the tax base of the asset was only reduced by one-fifth of the total cost in the first year. In addition, taxable profit will be available against which the deductible temporary differences can be utilized. As the asset carrying amount is less than the tax base, it will result in a deferred tax asset.
- B. Incorrect because a deferred tax liability results when the asset carrying amount is greater than the tax base.
- C. Incorrect because the asset carrying amount is less than the tax base, therefore it will result in a deferred tax asset.

## Financial Statement Analysis

- contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income

- A. **Correct** because the Cash conversion cycle = Days of inventory on hand + Days of sales outstanding – Number of days of payables. Number of days of payables = Days in the period / Payables turnover. If payables turnover were to decrease, it would increase the Number of days of payables, decreasing the CCC.
- B. Incorrect because the Cash conversion cycle = Days of inventory on hand + Days of sales outstanding – Number of days of payables. Days of inventory on hand = Days in the period / Inventory turnover. A decrease in inventory turnover would therefore increase the Days of inventory on hand, thereby increasing the cash conversion cycle.
- C. Incorrect because the Cash conversion cycle = Days of inventory on hand + Days of sales outstanding – Number of days of payables. An increase in the Days of sales outstanding would increase, not decrease, the cash conversion cycle.

## Financial Statement Analysis

- describe relationships among ratios and evaluate a company using ratio analysis

- A. **Correct** because the cash paid for interest is included in operating cash flows under US GAAP and may be included in operating or financing cash flows under IFRS. and US GAAP classify interest expense as an operating activity, even though the principal amount of the debt issued is classified as a financing activity. IFRS allow companies to classify interest expense as either an operating activity or a financing activity.
- B. Incorrect because the cash paid for interest is included in operating cash flows under US GAAP.
- C. Incorrect because the cash paid for interest is included in operating cash flows under US GAAP and may be included in operating or financing cash flows under IFRS.

## Financial Statement Analysis

- contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)

- A. **Correct** because the company's trailing 12 months earnings for the period ended 30 June of Year 2 are calculated as (Earnings as of 31 December of Year 1 – Earnings as of 30 June of Year 1) + Earnings as of 30 June of Year 2 =  $(1,500 - 2,000) + 2,200 = -500 + 2,200 = 1,700$ .
- B. Incorrect because the company's trailing 12 months earnings for the period ended 30 June of Year 2 are calculated as Earnings as of 31 December of Year 1 + Earnings as of 30 June of Year 2 =  $1,500 + 2,200 = 3,700$ .
- C. Incorrect because the company's trailing 12 months earnings for the period ended 30 June of Year 2 are calculated as Earnings as of 30 June of Year 1 + Earnings as of 30 June of Year 2 =  $2,000 + 2,200 = 4,200$ .

## Financial Statement Analysis

- describe tools and techniques used in financial analysis, including their uses and limitations

- A. Incorrect because although Company 1 has the lowest leverage ratio among the three (tied with Company 3), it has a lower interest coverage ratio than Company 3, indicating that it is not the most solvent.
- B. Incorrect because Company 2 has higher leverage ratios than Company 1 and Company 3 and a lower interest coverage ratio than Company 3, indicating that it is not the most solvent.
- C. **Correct** because the ability to meet long-term debt obligations is defined as solvency, which can be measured using leverage and coverage ratios. Generally, the higher the leverage ratio, the higher the financial risk and thus the weaker the solvency. A higher interest coverage ratio indicates stronger solvency. Using the information given, leverage and coverage ratios are:

	Company 1	Company 2	Company 3
Debt-to-assets ratio	0.20	0.25	0.20
Debt-to-equity ratio	0.25	0.33	0.25
Debt-to-capital	0.20	0.25	0.20
Financial leverage ratio	1.25	1.33	1.25
Interest coverage ratio	2.00	2.50	3.00

Company 3 and Company 1 have the lowest leverage ratios (debt-to-assets, debt-to-equity, debt-to-capital, and financial leverage), but Company 3 has a higher interest coverage ratio than Company 1. Company 3 has the least debt (proportionally) along with the highest coverage ability of the three companies.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because the carrying amount of an asset being higher than its tax base is considered to be a temporary difference that results in a deferred tax liability.
- B. Incorrect because the carrying amount of an asset being higher than its tax base is considered to be a temporary difference that results in a deferred tax liability.
- C. **Correct** because the carrying amount of an asset being higher than its tax base is considered to be a temporary difference that results in a deferred tax liability. Deferred tax liabilities, which also appear on the balance sheet, arise when a deficit amount is paid for income taxes and the company expects to eliminate the deficit over the course of future operations.

## Financial Statement Analysis

- contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income

A. **Correct** because the debt-to-equity ratio measures the amount of debt financing relative to equity financing. A debt-to-equity ratio of 1.0 indicates equal amounts of debt and equity, which is the same as a debt-to-capital ratio of 50 percent.

Debt-to-equity ratio = Total debt / Total shareholder's equity = 1.0. Accordingly, Total debt = Total shareholder's equity, while Debt-to-capital ratio = Total Debt / (Total Debt + Total shareholder's equity) = Total Debt / (2 × Total Debt) = 1/2 = 0.5.

- B. Incorrect because it considers Capital = Equity. Accordingly, Debt-to-equity ratio = Debt-to-capital ratio = 1.0.  
C. Incorrect because it considers debt-to-capital ratio to be a financial leverage ratio.

Financial leverage = Total assets / Total equity.

debt-to-equity ratio = Total debt / Total shareholder's equity = 1.0; or Total debt = Total shareholder's equity.

Accordingly, Total assets = Total liabilities + Total shareholder's equity while Total liabilities  $\geq$  Total debt.

Accordingly, Total assets  $\geq$  Total debt + Total shareholder's equity; or (in this case) Total assets  $\geq 2 \times$  Total shareholder's equity; or Financial leverage = Total assets / Total shareholder's equity  $\geq 2$ . Thus, Financial leverage should be  $\geq 2$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because the disclosure requirements under US GAAP are less exhaustive. A company must disclose the depreciation expense for the period, the balances of major classes of depreciable assets, accumulated depreciation by major classes or in total, and a general description of the depreciation method(s) used in computing depreciation expense with respect to the major classes of depreciable assets.
- B. Incorrect because the revaluation model is not allowed under US GAAP. The alternative model of reporting long-lived assets is the revaluation model, which is permitted under IFRS but not under US GAAP.
- C. Incorrect because under IFRS, for each class of property, plant, and equipment, a company must disclose the measurement bases, the depreciation method, the useful lives (or, equivalently, the depreciation rate) used, the gross carrying amount and the accumulated depreciation at the beginning and end of the period, and a reconciliation of the carrying amount at the beginning and end of the period. The disclosure requirements under US GAAP are less exhaustive. A company must disclose the depreciation expense for the period, the balances of major classes of depreciable assets, accumulated depreciation by major classes or in total, and a general description of the depreciation method(s) used in computing depreciation expense with respect to the major classes of depreciable assets. Thus, a reconciliation of carrying amount at the beginning and end of the period is required under IFRS but not required under US GAAP.

## Financial Statement Analysis

- analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible assets

- A. Incorrect because the fixed asset turnover ratio would be lower for a company whose assets are newer (and, therefore, less depreciated and so reflected in the financial statements at a higher carrying value) than the ratio for a company with older assets (that are thus more depreciated and so reflected at a lower carrying value).
- B. Incorrect because the fixed asset turnover ratio would be lower for a company whose assets are newer (and, therefore, less depreciated and so reflected in the financial statements at a higher carrying value) than the ratio for a company with older assets (that are thus more depreciated and so reflected at a lower carrying value).
- C. **Correct** because the fixed asset turnover ratio would be lower for a company whose assets are newer (and, therefore, less depreciated and so reflected in the financial statements at a higher carrying value) than the ratio for a company with older assets (that are thus more depreciated and so reflected at a lower carrying value).

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because the interest coverage ratio measures the number of times a company's EBIT could cover its interest payments. A higher interest coverage ratio indicates stronger solvency, offering greater assurance that the company can service its debt from operating earnings. Accordingly, Interest coverage ratio = EBIT/Interest payment. Year 1 Interest coverage ratio =  $40/8 = 5$  and Year 2 Interest coverage ratio =  $35/5 = 7$ . Therefore, interest coverage ratio has increased which indicates stronger solvency.
- B. Incorrect because the two primary types of solvency ratios are leverage ratios and coverage ratios. The financial leverage ratio (also called the 'leverage ratio' or 'equity multiplier') measures the amount of total assets supported by one money unit of equity. The higher the financial leverage ratio, the more leveraged the company in the sense of using debt and other liabilities to finance assets. Accordingly, Financial leverage ratio = Average total assets/Average shareholders' equity, Year 1 Financial leverage ratio =  $450/120 = 3.75$  and Year 2 Financial leverage ratio =  $500/100 = 5$ . Therefore, financial leverage ratio has increased which result in higher leverage and weaker solvency.
- C. Incorrect because the Financial leverage ratio = Average total assets/Average shareholders' equity. Accordingly, Year 1 Financial leverage ratio =  $450/120 \approx 3.75$  and Year 2 Financial leverage ratio =  $500/100 = 5$ . Therefore, financial leverage ratio has increased which results in higher leverage and weaker solvency. The interest coverage ratio measures the number of times a company's EBIT could cover its interest payments. A higher interest coverage ratio indicates stronger solvency, offering greater assurance that the company can service its debt from operating earnings. Accordingly, Interest coverage ratio = EBIT/Interest payment. Year 1 Interest coverage ratio =  $40/8 = 5$  and Year 2 Interest coverage ratio =  $35/5 = 7$ . Therefore, interest coverage ratio has increased which indicates stronger solvency.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

## Solution

- A. Incorrect because it assumes the cash proceeds from the sale of PP&E went towards either cash flow from operating or cash flow from financing, and not cash flow from investing.
- B. Incorrect because it incorrectly subtracts the gain from the carrying amount to calculate the sales proceeds.  
Thus, sales proceeds = carrying amount – gain on sale =  $75 - 2 = 73$ .
- C. **Correct** because the gain or loss on the sale of long-lived assets is computed as the sales proceeds minus the carrying amount of the asset at the time of sale. An asset's carrying amount is typically the net book value (i.e., the historical cost minus accumulated depreciation), unless the asset's carrying amount has been changed to reflect impairment and/or revaluation, as previously discussed. Ignoring taxes, the cash flow from the sale would appear as a cash inflow from investing. Thus, gain on sale of long lived asset = sales proceeds – carrying amount. Rearranging, sales proceeds = gain on sale of long lived asset + carrying amount =  $2 + 75 = 77$ .

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. **Correct** because the license has an indefinite life and is not amortised. Only those intangible assets assumed to have finite useful lives are amortised over their useful lives, following the pattern in which the benefits are used up. Examples of intangible assets with indefinite useful lives include an acquired license that, although it has a specific expiration date, can be renewed at little or no cost and an acquired trademark that, although it has a specific expiration, can be renewed at a minimal cost and relates to a product that a company plans to continue selling for the foreseeable future. Intangible assets with indefinite lives are not amortised. Instead, they are carried on the balance sheet at historical cost but are tested at least annually for impairment.
- B. Incorrect because the license has an indefinite life and is therefore not amortised. Intangible assets with indefinite lives are not amortised. Instead, they are carried on the balance sheet at historical cost but are tested at least annually for impairment.
- C. Incorrect because the license has an indefinite life and is therefore not amortised. Intangible assets with indefinite lives are not amortised. Instead, they are carried on the balance sheet at historical cost but are tested at least annually for impairment.

## Financial Statement Analysis

- compare the financial reporting of the following types of intangible assets: purchased, internally developed, and acquired in a business combination

- A. Incorrect because it calculates the carrying amount of the equipment = historical cost + accumulated depreciation =  $50 + 5 = 55$ . Consequently, the gain on the sale = selling price – carrying amount =  $58 - 55 = 3$ .
- B. Incorrect because it calculates the gain on the sale = selling price – historical cost =  $58 - 50 = 8$ .
- C. **Correct** because the gain or loss on the sale of long-lived assets is computed as the sales proceeds minus the carrying amount of the asset at the time of sale. An asset's carrying amount is typically the net book value (i.e., the historical cost minus accumulated depreciation). The carrying amount of the equipment = historical cost – accumulated depreciation =  $50 - 5 = 45$ , and the gain on the sale = selling price – carrying amount =  $58 - 45 = 13$ .

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

## Solution

- A. Incorrect because it is the carrying amount of the inventory, being  $\text{Min}(\text{Cost}; \text{Net realizable value}) = \text{Min}(750; 1,100 - 50 - 50) = 750$  (which is also equal to the cost of the inventory). IFRS state that inventories shall be measured (and carried on the balance sheet) at the lower of cost and net realizable value. While the net realizable value is the estimated selling price in the ordinary course of business less the estimated costs necessary to make the sale and estimated costs to get the inventory in condition for sale.
- B. Incorrect because it calculates  $\text{Net realizable value} = \text{Cost of inventory} + \text{Estimated costs necessary to make the sale} + \text{Estimated costs to get the inventory in condition for sale}$ ; or  $= 750 + 50 + 50 = 850$ .
- C. **Correct** because the net realizable value is the estimated selling price in the ordinary course of business less the estimated costs necessary to make the sale and estimated costs to get the inventory in condition for sale. Accordingly, the net realizable value  $= 1,100 - 50 - 50 = 1,000$ .

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

## Solution

- A. **Correct** because the quick ratio is a liquidity ratio which measures a company's ability to meet its short-term obligations.
- B. Incorrect because the operating profit margin is a profitability ratio which measures a company's ability to generate profits from its resources (assets).
- C. Incorrect because days of payables outstanding is an activity ratio which measures how efficiently a company performs day-to-day tasks, such as the collection of receivables and management of inventory.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

## Solution

- A. Incorrect because it is the Cash ratio. The Cash ratio = (Cash and equivalents + Short-term marketable securities) / Current liabilities. The calculation is  $(800 + 500) / 10,000 = 1,300 / 10,000 = 0.13$  or 13%.
- B. **Correct** because the Quick ratio = (Cash and equivalents + Short-term marketable securities + Receivables) / Current liabilities. The calculation is  $(800 + 500 + 2,000) / 10,000 = 3,300 / 10,000 = 0.33$ , or 33%.
- C. Incorrect because it is the Current ratio. The Current ratio = Current assets / Current liabilities, the calculation is  $(800 + 500 + 700 + 2,000) / 10,000 = 0.4$ , or 40%.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because the total debt ratio = total debt / total assets =  $100 / 400 = 0.25$ .
- B. Incorrect because it calculates total debt ratio = total debt / total equity, which is the debt-to-equity ratio =  $100 / 200 = 0.50$ . This ratio may also be incorrectly calculated by dividing total liabilities by total assets ( $200/400 = .50$ )
- C. Incorrect because it calculates total debt ratio = total assets / total equity, which is the financial leverage ratio =  $400 / 200 = 2.00$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because the major sources of cash for a company can vary with its stage of growth. For a mature company, it is expected and desirable that operating activities are the primary source of cash flows. Over the long term, a company must generate cash from its operating activities. If operating cash flow were consistently negative, a company would need to borrow money or issue stock (financing activities) to fund the shortfall. Eventually, these providers of capital need to be repaid from operations or they will no longer be willing to provide capital.
- B. Incorrect because for a mature company, it is expected and desirable that operating activities are the primary source of cash flows. Cash generated from operating activities can be used in either investing or financing activities. If the company has good opportunities to grow the business or other investment opportunities, it is desirable to use the cash in investing activities.
- C. Incorrect because for a mature company, it is expected and desirable that operating activities are the primary source of cash flows. Cash generated from operating activities can be used in either investing or financing activities. If the company does not have profitable investment opportunities, the cash should be returned to capital providers, a financing activity.

## Financial Statement Analysis

- analyze and interpret both reported and common-size cash flow statements

- A. Incorrect because it assumes only the incurred actual costs as being recognized as revenue = £0.5m. The standard states that for performance obligations satisfied over time (e.g., where there is a long-term contract), revenue is recognized over time by measuring progress toward satisfying the obligation.
- B. Incorrect because it assumes that revenue is only recognized according to the time elapsed. But, the standard refers to performance obligations satisfied over time and requires that progress toward complete satisfaction of the performance obligation be measured based on input method such as the one illustrated here (recognizing revenue based on the proportion of total costs that have been incurred in the period) or an output method (recognizing revenue based on units produced or milestones achieved). Accordingly, the calculation becomes £3.0m / 5 years = £0.6m.
- C. **Correct** because the standard states that for performance obligations satisfied over time (e.g., where there is a long-term contract), revenue is recognized over time by measuring progress toward satisfying the obligation. The standard refers to performance obligations satisfied over time and requires that progress toward complete satisfaction of the performance obligation be measured based on input method such as the one illustrated here (recognizing revenue based on the proportion of total costs that have been incurred in the period) or an output method (recognizing revenue based on units produced or milestones achieved). Accordingly, the company has incurred 25% of the total expected costs (£0.5m / £2.0m); and will thus recognize £0.75m ( $25\% \times £3.0m$ ) in revenue in Year 1.

## Financial Statement Analysis

- describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis

- A. **Correct** because there are several advantages to leasing an asset compared with purchasing it: Less cash is needed up front. Leases typically require little, if any, down payment.
- B. Incorrect because under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a "right-of-use" (ROU) asset on its balance sheet, both equal to the present value of future lease payments. For lessees, there are lease accounting exemptions for certain lease contracts: If its term is 12 months or less (IFRS and US GAAP) or it is for a "low-value asset," up to \$5,000 in sales price (IFRS only), then the lessee can elect to simply expense the lease payments on a straight-line basis.
- C. Incorrect because under IFRS, there is a single accounting model for both finance and operating leases for lessees. At lease inception, the lessee records a lease payable liability and a "right-of-use" (ROU) asset on its balance sheet, both equal to the present value of future lease payments.

## Financial Statement Analysis

- explain the financial reporting of leases from the perspectives of lessors and lessees

- A. **Correct** because to determine the cash paid for other operating expenses, it is necessary to adjust the other operating expenses amount on the income statement by the net changes in prepaid expenses and accrued expense liabilities for the year. Accordingly, Cash paid for other operating expenses = Other operating expenses – Decrease in prepaid expenses – Increase in other accrued liabilities =  $4,500 - 200 - 300 = 4,000$ .
- B. Incorrect because it added Decrease in prepaid expenses instead of subtracting it.  $4,500 + 200 - 300 = 4,400$ .
- C. Incorrect because it added Increase in accrued liabilities instead of subtracting it.  $4,500 - 200 + 300 = 4,600$ .

## Financial Statement Analysis

- demonstrate the conversion of cash flows from the indirect to direct method

- A. Incorrect because it calculates the carrying amount of the equipment = purchase price of the equipment – accumulated depreciation =  $1,000 - 250 = 750$ .
- B. **Correct** because the gain or loss on the sale of long-lived assets is computed as the sales proceeds minus the carrying amount of the asset at the time of sale. An asset's carrying amount is typically the net book value (i.e., the historical cost minus accumulated depreciation). Cash flow from the sale of the equipment = sale proceeds = carrying amount of the equipment + gain on sale of the equipment =  $(1,000 - 250) + 400 = 1,150$ .
- C. Incorrect because it calculates the cashflow from the sale of equipment = purchase price of the equipment + gain on sale of the equipment =  $1,000 + 400 = 1,400$ .

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. Incorrect because there are situations when a company receives cash in advance and actually delivers the product or service later, perhaps over a period of time. In this case, the company would record a liability for unearned revenue when the cash is initially received, and revenue would be recognized as being earned over time as products and services are delivered. As delivery of services does not happen in the current year, no revenue is recognized in the current year and, therefore, the transaction will not increase net income for the current year.
- B. **Correct** because there are situations when a company receives cash in advance and actually delivers the product or service later, perhaps over a period of time. In this case, the company would record a liability for unearned revenue when the cash is initially received, and revenue would be recognized as being earned over time as products and services are delivered.
- C. Incorrect because the cash flow will be recognized in the current year even though the revenue will not be recognized until the following year. The receipt of cash in the current year will increase cash flow from operating activities in the current year rather than the following year.

## Financial Statement Analysis

- describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis

- A. Incorrect because the quick ratio is unaffected by the upward asset revaluation. Quick ratio = (cash + short-term marketable investments + receivables) / current liabilities. As an initial upward asset revaluation only affects the PP&E on the asset side and the surplus account in equity, neither the numerator nor the denominator is affected. The quick ratio remains unchanged.
- B. Incorrect because the upward asset revaluation decreases the total asset turnover ratio and therefore has a negative effect on this activity ratio. Total asset turnover = revenue / average total assets. As an initial upward asset revaluation only affects the PP&E on the asset side and the surplus account in equity, the numerator is unaffected and only the denominator increased. This leads to a decreased total asset turnover.
- C. **Correct** because the upward asset revaluation decreases the debt-to-asset ratio and therefore improves the debt-to-asset ratio / solvency ratio of the company. Debt-to-assets ratio = total debt / total assets. Under the revaluation model, whether an asset revaluation affects earnings depends on whether the revaluation initially increases or decreases an asset class' carrying amount. If a revaluation initially increases the carrying amount of the asset class, the increase in the carrying amount of the asset class bypasses the income statement and goes directly to equity under the heading of revaluation surplus. As this revaluation initially increases the carrying amount of the asset class, the effect is an increase of total assets and total equity. Total debt remains unchanged. Unchanged numerator (total debt) over an increased denominator (total asset) decreases the ratio.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. **Correct** because US GAAP classify dividends paid to stockholders as a financing activity, whereas IFRS allow companies to classify dividends paid as either an operating activity or a financing activity.
- B. Incorrect because US GAAP classify dividends paid to stockholders as a financing activity, whereas IFRS allow companies to classify dividends paid as either an operating activity or a financing activity.
- C. Incorrect because US GAAP classify dividends paid to stockholders as a financing activity, whereas IFRS allow companies to classify dividends paid as either an operating activity or a financing activity.

## Financial Statement Analysis

- contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)

- A. Incorrect because this is the third of five steps in recognizing revenue according to the converged accounting standard for revenue recognition.
- B. **Correct** because this is the first of five steps in recognizing revenue according to the converged accounting standard for revenue recognition. The converged accounting standard for revenue recognition describes the application of five steps in recognizing revenue:
1. Identify the contract(s) with a customer
  2. Identify the separate or distinct performance obligations in the contract
  3. Determine the transaction price
  4. Allocate the transaction price to the performance obligations in the contract
  5. Recognize revenue when (or as) the entity satisfies a performance obligation.
- C. Incorrect because this is the second of five steps in recognizing revenue according to the converged accounting standard for revenue recognition.

## Financial Statement Analysis

- describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis

- A. Incorrect because this defines the interest coverage ratio (instead of the financial leverage ratio). The *interest coverage ratio* measures the number of times a company's EBIT could cover its interest payments. A higher interest coverage ratio indicates stronger solvency, offering greater assurance that the company can service its debt from operating earnings.
- B. Incorrect because this defines the debt-to-equity ratio (instead of the financial leverage ratio). The *debt-to-equity ratio* measures the amount of debt financing relative to equity financing. Higher debt-to-capital or debt-to-equity ratios imply weaker solvency.
- C. **Correct** because this defines the financial leverage ratio. The *financial leverage ratio* (also called the 'leverage ratio' or 'equity multiplier') measures the amount of total assets supported by one money unit of equity. The higher the financial leverage ratio, the more leveraged the company in the sense of using debt and other liabilities to finance assets. This ratio often is defined in terms of average total assets and average total equity and plays an important role in the DuPont decomposition of return on equity.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. Incorrect because this metric indicates the amount of time that elapses from the point when a company invests in working capital until the point at which the company collects cash. Consequently, the cash conversion cycle does not indicate the degree to which a company's liquid assets can cover daily cash expenditures.
- B. **Correct** because this ratio measures how long the company can continue to pay its expenses from its existing liquid assets without receiving any additional cash inflow.
- C. Incorrect because this measure focuses on the degree to which the company's earnings can cover its fixed charges. This ratio relates fixed charges, or obligations, to the cash flow generated by the company. It measures the number of times a company's earnings (before interest, taxes, and lease payments) can cover the company's interest and lease payments.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

## Solution

- A. Incorrect because under both IFRS and US GAAP, accounting goodwill arising from acquisitions is capitalized.
- B. Incorrect because under both IFRS and US GAAP, accounting goodwill arising from acquisitions is capitalized.

Goodwill is not amortised but is tested for impairment annually. If goodwill is deemed to be impaired, an impairment loss is charged against income in the current period.

- C. **Correct** because under both IFRS and US GAAP, accounting goodwill arising from acquisitions is capitalized.

Goodwill is not amortised but is tested for impairment annually. If goodwill is deemed to be impaired, an impairment loss is charged against income in the current period.

## Financial Statement Analysis

- explain the financial reporting and disclosures related to goodwill

- A. **Correct** because when a cash flow statement has been presented using the indirect method, operating cash inflows and outflows are not separately presented; therefore, the common-size cash flow statement shows only the net operating cash flow (net cash provided by or used in operating activities) as a percentage of total inflows or outflows, depending on whether the net amount was a cash inflow or outflow. Because the net amount is an outflow, it should be calculated as a percentage of total cash outflows as follows:  $750/2500 = 30\%$ .
- B. Incorrect because when a cash flow statement has been presented using the indirect method, operating cash inflows and outflows are not separately presented; therefore, the common-size cash flow statement shows only the net operating cash flow (net cash provided by or used in operating activities) as a percentage of total inflows or outflows, depending on whether the net amount was a cash inflow or outflow. Because the net amount is an outflow, it should be calculated as a percentage of total cash outflows as follows:  $750/2500 = 30\%$ . The incorrect answer is obtained by dividing net cash used in operations by total cash inflows:  $750/1500 = 50\%$ .
- C. Incorrect because when a cash flow statement has been presented using the indirect method, operating cash inflows and outflows are not separately presented; therefore, the common-size cash flow statement shows only the net operating cash flow (net cash provided by or used in operating activities) as a percentage of total inflows or outflows, depending on whether the net amount was a cash inflow or outflow. Because the net amount is an outflow, it should be calculated as a percentage of total cash outflows as follows:  $750/2500 = 30\%$ . The incorrect answer is obtained by dividing net cash used in operations by the net decrease in cash:  $750/1000 = 75\%$ .

## Financial Statement Analysis

- analyze and interpret both reported and common-size cash flow statements

- A. **Correct** because when a company disposes of or establishes a plan to dispose of one of its component operations and will have no further involvement in the operation, the income statement reports separately the effect of this disposal as a "discontinued" operation under both IFRS and US GAAP. Financial standards provide various criteria for reporting the effect separately, which are generally that the discontinued component must be separable both physically and operationally.
- B. Incorrect because IFRS require that items of income or expense that are material and/or relevant to the understanding of the entity's financial performance should be disclosed separately. Unusual or infrequent items are likely to meet these criteria. .... For example, restructuring charges, such as costs to close plants and employee termination costs, are considered part of a company's ordinary activities. As another example, gains and losses arising when a company sells an asset or part of a business, for more or less than its carrying value, are also disclosed separately on the income statement. These sales are considered ordinary business activities.
- C. Incorrect because both IFRS and US GAAP specify that the results of discontinued operations should be reported separately from continuing operations. When a company disposes of or establishes a plan to dispose of one of its component operations and will have no further involvement in the operation, the income statement reports separately the effect of this disposal as a "discontinued" operation.

## Financial Statement Analysis

- describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies

- A. Incorrect because this is the impairment loss recognized under US GAAP instead of IFRS. Under US GAAP, assessing recoverability is separate from measuring the impairment loss. An asset's carrying amount is considered not recoverable when it exceeds the undiscounted expected future cash flows. If the asset's carrying amount is considered not recoverable, the impairment loss is measured as the difference between the asset's fair value and carrying amount. As the carrying amount of  $2,000 >$  undiscounted expected future cash flows of 1,800, the asset is considered not recoverable. The impairment loss = carrying amount – fair value =  $2,000 - 1,700 = 300$ .
- B. **Correct** because under IAS 36, an impairment loss is measured as the excess of carrying amount over the recoverable amount of the asset. The recoverable amount of an asset is defined as the higher of its fair value less costs to sell and its value in use. Value in use is a discounted measure of expected future cash flows. As the recoverable amount =  $\text{MAX}(\text{Fair value less costs to sell}, \text{Value in use}) = \text{MAX}[(1,700 - 50); 1,500] = 1,650$ , the impairment loss = carrying amount - recoverable amount =  $2,000 - 1,650 = 350$ .
- C. Incorrect because it calculates the recoverable amount as the lower of its fair value less costs to sell and its value in use. Accordingly, the recoverable amount =  $\text{MIN}(\text{Fair value less costs to sell}, \text{Value in use}) = \text{MIN}[(1,700 - 50); 1,500] = 1,500$ , the impairment loss = carrying amount – recoverable amount =  $2,000 - 1,500 = 500$ .

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. **Correct** because when an asset is retired or abandoned, the accounting is similar to a sale, except that the company does not record cash proceeds. Assets are reduced by the carrying amount of the asset at the time of retirement or abandonment, and a loss equal to the asset's carrying amount is recorded. The carrying amount of the asset is 10 at the time of abandonment. As a result, the asset's carrying value will be reduced to 0, resulting in a loss of 10 on the income statement, and will have no cash impact on the cash flow statement.
- B. Incorrect because it calculates the loss of 1 on the income statement by using the fair value at the time of abandonment which is incorrect because the cost model is applied.
- C. Incorrect because there should be no cash impact on the cash flow statement. However, the decrease of 1 on the cash flow statement is due to the incorrect recognition of the 1 fair value at the time of abandonment.

## Financial Statement Analysis

- explain and evaluate how impairment and derecognition of property, plant, and equipment and intangible assets affect the financial statements and ratios

- A. Incorrect because it calculated the tax burden (42.78%, or  $\approx 43\%$ ) instead of the average tax rate. Tax burden reflects one minus the average tax rate, or how much of a company's pretax profits it gets to keep.
- B. Incorrect because it mistook ROE for ROA in the calculation. ROA can be decomposed into Tax Burden  $\times$  Interest burden  $\times$  EBIT margin  $\times$  Total asset turnover. Accordingly, Tax burden = ROA / (Interest burden  $\times$  EBIT margin  $\times$  Total asset turnover)  $15\% / (0.85 \times 30\% \times 1.1) = 53.48\%$ . Tax burden "reflects one minus the average tax rate. Thus, average tax rate =  $1 - \text{Tax burden} = 1 - 53.48\% = 46.52\% \approx 47\%$ .
- C. **Correct** because using DuPont analysis,  $\text{ROE} = \text{Tax Burden} \times \text{Interest Burden} \times \text{EBIT margin} \times \text{Total asset turnover} \times \text{Leverage}$ . Accordingly, Tax burden =  $\text{ROE} / (\text{Interest Burden} \times \text{EBIT margin} \times \text{Total asset turnover} \times \text{Leverage}) = 15\% / (0.85 \times 30\% \times 1.1 \times 1.25) = 42.78\%$ . Tax burden reflects one minus the average tax rate, or how much of a company's pretax profits it gets to keep. Thus, average tax rate =  $1 - \text{Tax burden} = 1 - 42.78\% = 57.22\% \approx 57\%$ .

## Financial Statement Analysis

- demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components

- A. Incorrect because the estimated useful life, rather than the remaining useful life of the class, is required. Under IFRS, for each class of property, plant, and equipment, a company must disclose the useful lives (or, equivalently, the depreciation rate) used.
- B. **Correct** because under IFRS, for each class of property, plant, and equipment, a company must disclose the measurement bases, the depreciation method, the useful lives (or, equivalently, the depreciation rate) used, the gross carrying amount and the accumulated depreciation at the beginning and end of the period, and a reconciliation of the carrying amount at the beginning and end of the period. In addition, disclosures of restrictions on title and pledges as security of property, plant, and equipment and contractual agreements to acquire property, plant, and equipment are required.
- C. Incorrect because disclosing how fair value was obtained is only required for classes of PP&E that are carried under the revaluation model instead of the cost model. Under IFRS, for each class of property, plant, and equipment, a company must disclose. If the revaluation model is used, the date of revaluation, details of how the fair value was obtained, the carrying amount under the cost model, and the revaluation surplus must be disclosed.

## Financial Statement Analysis

- analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible assets

- A. Incorrect because it is recognized in profit and loss instead of other comprehensive income. Under IFRS, the change in the net pension asset or liability each period is viewed as having three general components. Two of the components of this change are recognised as pension expense in profit and loss: (1) employees' service costs, and (2) the net interest expense or income accrued on the beginning net pension asset or liability.
- B. **Correct** because under IFRS, the change in the net pension asset or liability each period is viewed as having three general components. Two of the components of this change are recognised as pension expense in profit and loss: (1) employees' service costs, and (2) the net interest expense or income accrued on the beginning net pension asset or liability. The third component of the change in the net pension asset or liability during a period—"remeasurements"—is recognised in other comprehensive income. Remeasurements are not amortised into profit or loss over time. Remeasurements include (a) actuarial gains and losses.
- C. Incorrect because it is recognized in profit and loss instead of other comprehensive income. Under IFRS, the change in the net pension asset or liability each period is viewed as having three general components. Two of the components of this change are recognised as pension expense in profit and loss: (1) employees' service costs, and (2) the net interest expense or income accrued on the beginning net pension asset or liability.

## Financial Statement Analysis

- explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans

- A. Incorrect because FCFE is equal to FCFF.
- B. **Correct** because under U.S. GAAP, free cash flow to the firm is calculated as CFO + int (1 - tax rate) – capital expenditures. Since the firm has interest bearing debt outstanding, \$18,000 ( $\$30,000 \times (1 - .4)$ ) is added back to CFO in calculating FCFF. In addition, the capital expenditures of \$82,000 are subtracted so the equation becomes CFO + \$18,000 – \$82,000 for a net decrease to CFO of \$64,000 ( $\$18,000 - \$82,000 = -\$64,000$ ). The calculation for free cash flow to equity is CFO – capital expenditures + net borrowing with no adjustment for interest paid under U.S. GAAP. The calculation becomes CFO – \$82,000 + \$18,000 for a net decrease to CFO of \$64,000 ( $-\$82,000 + \$18,000$ ). Therefore, FCFE will be equal to FCFF; as the after-tax interest add-back to FCFF is equal to the net borrowing add-back to FCFE and CFO and capital expenditures are the same for both.
- C. Incorrect because FCFE is equal to FCFF.

## Financial Statement Analysis

- calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios

- A. Incorrect because US GAAP used to specify the lower of cost or market to value inventories. For fiscal years beginning after December 15, 2016, inventories measured using other than LIFO and retail inventory methods are measured at the lower of cost or net realizable value.
- B. **Correct** because under US GAAP for fiscal years beginning after December 15, 2016, inventories measured using other than LIFO and retail inventory methods are measured at the lower of cost or net realizable value.
- C. Incorrect because US GAAP used to specify the lower of cost or market to value inventories. For fiscal years beginning after December 15, 2016, inventories measured using other than LIFO and retail inventory methods are measured at the lower of cost or net realizable value. This answer incorrectly uses some of the inventory measurement restrictions under US GAAP for LIFO. For inventories measured using LIFO and retail inventory methods, market value is defined as current replacement cost subject to upper and lower limits. Market value cannot exceed net realizable value.

## Financial Statement Analysis

- describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios

- A. Incorrect because under US GAAP, all investments in equity securities (other than investments giving rise to ownership positions that confer significant influence over the investee) are measured at fair value with unrealized holding gains or losses recognized in the income statement.
- B. Correct** because under US GAAP, all investments in equity securities (other than investments giving rise to ownership positions that confer significant influence over the investee) are measured at fair value with unrealized holding gains or losses recognized in the income statement.
- C. Incorrect because under US GAAP, all investments in equity securities (other than investments giving rise to ownership positions that confer significant influence over the investee) are measured at fair value with unrealized holding gains or losses recognized in the income statement.

## Financial Statement Analysis

- explain the financial reporting and disclosures related to financial instruments

A. Incorrect because it subtracts the preferred dividends from net income in the diluted EPS calculation.

Accordingly, Diluted EPS =  $(€2,500,000 - 1,000,000 \times €1) \div (2,000,000 + 2 \times 1,000,000) = €1,500,000 \div 4,000,000 = €0.375 \approx €0.38$ .

B. Incorrect because it subtracts the preferred dividends multiplied with an after-tax percentage from net income in the diluted EPS calculation. Accordingly, Diluted EPS =  $(€2,500,000 - 1,000,000 \times €1 \times (1 - 0.4)) \div (2,000,000 + 2 \times 1,000,000) = €1,900,000 \div 4,000,000 = €0.475 \approx €0.48$ .

C. **Correct** because when a company has convertible preferred stock outstanding, diluted EPS is calculated using the if-converted method. The formula to calculate diluted EPS using the if-converted method for preferred stock is: Diluted EPS = Net income ÷ (Weighted average number of shares outstanding + New common shares that would have been issued at conversion). Therefore, Diluted EPS =  $€2,500,000 \div (2,000,000 + 2 \times 1,000,000) = €2,500,000 \div 4,000,000 = €0.625 \approx €0.63$ . However, diluted EPS, by definition, is always equal to or less than basic EPS. Basic EPS = (Net income - Preferred dividends) ÷ (Weighted average number of shares outstanding) =  $(€2,500,000 - 1,000,000 \times €1) \div 2,000,000 = €1,500,000 \div 2,000,000 = €0.75$ . Therefore the convertible preferred stocks are dilutive and diluted EPS = €0.63.

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

- A. Incorrect because it subtracts the preferred dividends from net income in the diluted EPS calculation. The calculation becomes: Diluted EPS =  $(€5,000,000 - 400,000 \times €2) \div (2,000,000 + 6 \times 400,000) = €4,200,000 \div 4,400,000 = €0.95$ .
- B. Incorrect because it subtracts the common dividends from net income in the diluted EPS calculation. The calculation becomes: Diluted EPS =  $(€5,000,000 - 500,000) \div (2,000,000 + 6 \times 400,000) = €4,500,000 \div 4,400,000 = €1.02$ .
- C. **Correct** because when a company has convertible preferred stock outstanding, diluted EPS is calculated using the if-converted method. The formula to calculate diluted EPS using the if-converted method for preferred stock is: Diluted EPS = Net income  $\div$  (Weighted average number of shares outstanding + New common shares that would have been issued at conversion). Therefore, Diluted EPS =  $€5,000,000 \div (2,000,000 + 6 \times 400,000) = €5,000,000 \div 4,400,000 = €1.14$ . Checking that diluted EPS, by definition, is always equal to or less than basic EPS. Basic EPS = (Net income – Preferred dividends)  $\div$  (Weighted average number of shares outstanding) =  $(€5,000,000 - 400,000 \times €2) \div 2,000,000 = €4,200,000 \div 2,000,000 = €2.1$ . Therefore, the convertible preferred stocks are dilutive and diluted EPS = €1.14.

## Financial Statement Analysis

- describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities

- A. Incorrect because it states Cash and cash equivalents as percentage of Revenue instead of Total assets. Consequently, the calculation becomes Cash and cash equivalents / Revenue = 40 / 200 = 20%. Alternatively, double counting Cash and cash equivalents when calculating Total assets would produce the same result. Consequently, Cash and cash equivalents = Cash and cash equivalents / (Cash and cash equivalents + Total current assets + Total non-current assets) = 40 / (40 + 125 + 35) = 40 / 200 = 20%.
- B. **Correct** because vertical common-size analysis, involves stating each balance sheet item as a percentage of total assets. Accordingly, Cash and cash equivalents is stated as a percentage of Total assets = Cash and cash equivalents / (Total current assets + Total non-current assets) = 40 / (125 + 35) = 40 / 160 = 25%.
- C. Incorrect because it states Cash and cash equivalents as percentage of Total current assets instead of Total assets. Consequently, the calculation becomes Cash and cash equivalents / Total current assets = 40 / 125 = 32%.

## Financial Statement Analysis

- calculate and interpret common-size balance sheets and related financial ratios

- A. **Correct** because Payables turnover = Purchases / Average trade payables; or = Purchases (proxied by cost of sales) / Average trade payables; or =  $1,800 / [(180 + 220) / 2] = 1,800 / 200 = 9$ . The number of days of payables reflects the average number of days the company takes to pay its suppliers, and the payables turnover ratio measures how many times per year the company theoretically pays off all its creditors. For purposes of calculating these ratios, an implicit assumption is that the company makes all its purchases using credit. Cost of goods sold [or cost of sales] is sometimes used as an approximation of purchases.
- B. Incorrect because it uses ending accounts payable rather than average payables in the denominator of the calculation; or =  $1,800 / 180 = 10$ .
- C. Incorrect because it uses sales rather than cost of sales in the numerator of the calculation; or =  $2,400 / [(180 + 220) / 2] = 2,400 / 200 = 12$ .

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

A. **Correct** because, Cash conversion cycle (net operating cycle) (CCC) = DOH + DSO – Number of days of payables and this metric indicates the amount of time that elapses from the point when a company invests in working capital until the point at which the company collects cash. A shorter cash conversion cycle indicates greater liquidity. A longer cash conversion cycle indicates lower liquidity. Also, Payables turnover = Purchases / Average trade payables and Number of days of payables = Number of days in period / Payables turnover. Accordingly, the number of days payable for Year 2 = Number of days in period / Payables turnover; or  $365 / 36 \approx 10.1389$  and the number of days payable for Year 1 = Number of days in period / Payables turnover; or  $365 / 18 \approx 20.2778$ . (365 is used for the number of days in a year, given the annual data.) The CCC for Year 2 = DOH + DSO – Number of days of payables; or  $11 + 24 - 10.1389 = 24.8611$  and the CCC for Year 1 = DOH + DSO – Number of days of payables; or  $13 + 22 - 20.2778 = 14.7222$ . As the CCC is higher (longer) in Year 2 than in Year 1 ( $24.8611 > 14.7222$ ), the company's liquidity based on its CCC alone has deteriorated.

B. Incorrect because it did not consider the Number of days of payables in the calculation of the CCC. Instead, CCC for Year 2 = DOH + DSO =  $11 + 24 = 35$  and CCC for Year 1 = DOH + DSO = is  $13 + 22 = 35$ . As the CCC calculated for Year 2 is the same as Year 1, the company's liquidity based on its CCC alone remained the same.

C. Incorrect because it did not convert the Payables turnover ratio to Number of days of payables. Instead, CCC for Year 2 = DOH + DSO – Payables turnover =  $11 + 24 - 36 = -1$  and CCC for Year 1 = DOH + DSO – Payables turnover =  $13 + 22 - 18 = 17$ . As the CCC is lower (shorter) in Year 2 than in Year 1, the company's liquidity based on its CCC alone appears to have improved.

## Financial Statement Analysis

- describe relationships among ratios and evaluate a company using ratio analysis

- A. Incorrect because the role of financial statements issued by companies is to provide information about a company's performance, financial position, and changes in financial position. The answer describes the role of management analysis: managers within a company perform financial analysis to make operating, investing, and financing decisions but do not necessarily rely on analysis of related financial statements.
- B. Correct** because the role of financial statements issued by companies is to provide information about a company's performance, financial position, and changes in financial position.
- C. Incorrect because the role of financial statements issued by companies is to provide information about a company's performance, financial position, and changes in financial position. The answer describes the role of financial statement analysis. The role of financial statement analysis is to use financial reports prepared by companies, combined with other information, to evaluate the past, current, and potential performance and financial position of a company for the purpose of making investment, credit, and other economic decisions.

## Financial Statement Analysis

- describe the roles of financial statement analysis

- A. Incorrect because it uses Net income instead of EBIT. Accordingly, Fixed charge coverage ratio = (Net income + Lease payments) / (Interest payments + Lease payments) =  $(8 + 4) / (6 + 4) = 1.2$ .
- B. Incorrect because it omits Lease payments in the numerator. Accordingly, Fixed charge coverage ratio = EBIT / (Interest payments + Lease payments) =  $16 / (6 + 4) = 1.6$ .
- C. **Correct** because the fixed charge coverage ratio relates fixed financing charges, or obligations, to the cash flow generated by the company. It measures the number of times a company's earnings (before interest, taxes, and lease payments) can cover the company's interest and lease payments. Accordingly, Fixed charge coverage ratio =  $(EBIT + \text{Lease payments}) / (\text{Interest payments} + \text{Lease payments}) = (16 + 4) / (6 + 4) = 2.0$ .

For computing this ratio, an assumption sometimes made is that one-third of the lease payment amount represents interest on the lease obligation and that the rest is a repayment of principal on the obligation. For this variant of the fixed charge coverage ratio, the numerator is EBIT plus one-third of lease payments and the denominator is interest payments plus one-third of lease payments. Accordingly, Fixed charge coverage ratio =  $[EBIT + (\text{Lease payments} / 3)] / (\text{Interest payments} + (\text{Lease payments} / 3)) = (16 + 4/3) / (6 + 4/3) \approx 2.36$  which is also closest to 2.0.

## Financial Statement Analysis

- calculate and interpret activity, liquidity, solvency, and profitability ratios

- A. **Correct** because, under US GAAP, a valuation allowance for deferred tax assets increases the effective tax rate when recognized (because it increases income tax expense). Under US GAAP, deferred tax assets are reduced by creating a valuation allowance. Establishing a valuation allowance reduces the deferred tax asset and income in the period in which the allowance is established. Also,  $\text{Reported effective tax rate} = \text{Income tax expense} / \text{Pretax income (Accounting profit)}$ .
- B. Incorrect because, under US GAAP, the recognition of a valuation allowance for deferred tax assets impacts the effective tax rate only.
- C. Incorrect because, under US GAAP, the recognition of a valuation allowance for deferred tax assets impacts the effective tax rate only.

## Financial Statement Analysis

- analyze disclosures relating to deferred tax items and the effective tax rate reconciliation and explain how information included in these disclosures affects a company's financial statements and financial ratios

- A. **Correct** because, under US GAAP, companies are required to use the cost model to value intangible assets. IFRS allow companies to value intangible assets under a cost model or under a revaluation model. The revaluation model can only be selected when there is an active market for an intangible asset.
- B. Incorrect because the revaluation model is not allowed under US GAAP; however, IFRS permit the use of the revaluation model or the cost model.
- C. Incorrect because the revaluation model is not allowed under US GAAP; however, IFRS permit the use of the revaluation model or the cost model.

## Financial Statement Analysis

- explain the financial reporting and disclosures related to intangible assets

- A. Incorrect because there are several advantages to leasing an asset compared with purchasing it: Cost effectiveness: Leases are a form of secured borrowing; in the event of non-payment, the lessor simply repossesses the leased asset. As a result, the effective interest rate for a lease is typically lower than what the lessee would pay on an unsecured loan or bond.
- B. Incorrect because there are several advantages to leasing an asset compared with purchasing it: Less cash is needed up front. Leases typically require little, if any, down payment.
- C. **Correct** because there are several advantages to leasing an asset compared with purchasing it: Convenience and lower risks associated with asset ownership, such as obsolescence.

## Financial Statement Analysis

- explain the financial reporting of leases from the perspectives of lessors and lessees

A. **Correct**, because to determine the approximate cash receipts from its customers, it is necessary to adjust this revenue by the net change in accounts receivable for the year. Revenue minus the change in receivables =  $2,100 - (230 - 200) = 2,070$ .

B. Incorrect, because it adds the change in cash to revenues rather than subtracting the change in receivables.  
 $2,100 + (70 - 50) = 2,120$ .

C. Incorrect, because it adds the change in accounts receivable to revenue rather than subtracting the change.  
 $2,130 = 2,100 + (230 - 200) = 2,130$ .

## Financial Statement Analysis

- describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data