

Solutions to Practice Quiz

1. Topic: Valuation of futures contract

LO 1

Answer: a

Rationale: The contract allows the company to buy the commodity for a total cost of $\$0.40 \times 10,000 = \$4,000$ on May 31. The May 1 cost to buy the commodity on May 31 is $\$0.42 \times 10,000 = \$4,200$. Therefore the contract is an asset, valued at $\$4,200 - \$4,000 = \$200$.

2. Topic: Hedge effectiveness of futures

LO 1

Answer: d

Rationale: Under current standards, to qualify for hedge accounting, the change in value of the futures divided by the change in value of the inventory must be in the range (–80% to –125%). Alternative d has a hedge effectiveness of $(-\$2,700/\$2,100) = -128.6\%$, which is outside this range.

3. Topic: Hedging using options

LO 2

Answer: d

Rationale: Alternatives a and b are not hedge investments. Alternative c does not require special hedge accounting because trading securities are already reported at fair value. Therefore normal accounting matches the gains/losses on the hedge investment with the losses/gains on the stock. The call option is a hedge of a forecasted purchase, because it locks in the purchase price. Hedge accounting is required to classify the change in the value of the option in other comprehensive income until the silver purchase is reported in income (when the silver is sold).

4. Topic: Cash flow hedge with futures

LO 1

Answer: c

Rationale: $[100,000 \times (\$30 - \$25)] + \$30,000 = \$530,000$

5. Topic: Cash flow hedge with futures

LO 1

Answer: b

Rationale: $\$29.50 \times 100,000 = \$2,950,000$

6. Topic: Cash flow hedge with futures

LO 1

Answer: c

Rationale: The entry to record cost of goods sold is:

Cost of goods sold	2,450,000	
Other comprehensive income	500,000	
Inventory		2,950,000

If the sales revenue is $\$28 \times 100,000 = \$2,800,000$, the gross margin is $\$2,800,000 - \$2,450,000 = \$350,000$.

7. Topic: Fair value hedge using options

LO 2

Answer: c

Rationale: The loss on the GE stock for the unhedged period, August 1 to October 1, is reported in other comprehensive income, because this is the normal accounting for AFS investments. The loss is $(\$20 - \$17) \times 10,000 = \$30,000$. During the hedging period, the change in value of both the stock and the options is reported in income. The loss on the stock is $(\$17 - \$15.75) \times 10,000 = \$12,500$. The gain on the options is $\$13,000 - \$2,000 = \$11,000$. The effect on income is a net loss of \$1,500.

8. Topic: Option value

LO 2

Answer: b

Rationale: The options are in the money, since the selling price of \$17/share is greater than the December 31 market price of \$15.75. The intrinsic value of the options is the amount by which they are in the money: $(\$17 - \$15.75) \times 10,000 = \$12,500$. The options have a market value of \$13,000, so \$500 ($= \$13,000 - \$12,500$) is their time value.

9. Topic: Interest rate swap

LO 3

Answer: a

Rationale: A receive variable/pay fixed interest rate swap is a cash flow hedge of the variable rate debt. Changes in the value of the swap are reported in other comprehensive income as they occur, and adjust future interest expense on the variable rate debt. Changes in the market value of the variable rate debt are not reported.

10. Topic: Interest rate swap

LO 3

Answer: b

Rationale: A receive fixed/pay variable interest rate swap is a fair value hedge of the fixed rate debt, so changes in the value of the debt and the swap are both reported in income. If interest rates rise, the present value of the debt is lower, and the company reports a gain on the debt. There is a loss on the swap, since higher interest rates mean that the company must pay higher variable interest.