

## FA Module 9 Inventory weighted average practice exam questions

covering units of inventory at year-end, units bought, units sold, inventory turnover, gross profit margin, cost of goods sold, net revenue

(The attached PDF file has better formatting.)

A firm buys inventory in Country W and resells it to customers in Country Z.

- ! At year-end 20X0, the firm has 179 units of inventory costing 7.30 apiece.
- ! In 20X1, the firm buys 495 units at 10.10 apiece and sells 431 units for 17.30 apiece.
- ! In 20X2, the firm buys 585 units at 12.60 apiece and sells 544 units for 18.60 apiece.

The firm uses the weighted average inventory method.

Question 9.1: Inventory units at year-end 20X1

What are the units of inventory at year-end 20X1?

Answer 9.1:  $179 + 495 - 431 = 243$

(units of inventory at year-end 20X1 = units held at year-end 20X0 + units bought in 20X1 – units sold in 20X1)

Question 9.2: Inventory at year-end 20X1

What is the inventory at year-end 20X1?

Answer 9.2:  $243 \times (179 \times 7.30 + 495 \times 10.10) / (179 + 495) = 2,273.60$

(inventory at year-end 20X1 = inventory units  $\times$  weighted average cost)

Question 9.3: Inventory units at year-end 20X2

What are the units of inventory at year-end 20X2?

Answer 9.3:  $243 + 585 - 544 = 284$

(units of inventory at year-end 20X2 = units held at year-end 20X1 + units bought in 20X2 – units sold in 20X2)

Question 9.4: Inventory at year-end 20X2

What is the inventory at year-end 20X2?

Answer 9.4:  $284 \times (2,273.60 + 585 \times 12.60) / (243 + 585) = 3,308.05$

(inventory at year-end 20X2 = inventory units  $\times$  weighted average cost)

Question 9.5: Cost of goods sold in 20X1

What is the cost of goods sold in 20X1?

Answer 9.5:  $179 \times 7.30 + 495 \times 10.10 - 2,273.60 = 4,032.60$

(cost of goods sold in 20X1 = units on hand at year-end 20X0  $\times$  cost per unit + units bought in 20X1  $\times$  cost per unit in 20X1 – inventory at year-end 20X1)

Question 9.6: Cost of goods sold in 20X2

What is the cost of goods sold in 20X2?

Answer 9.6:  $2,273.60 + 585 \times 12.60 - 3,308.05 = 6,336.55$

(cost of goods sold in 20X2 = inventory at year-end 20X1 + units bought in 20X2  $\times$  cost per unit in 20X2 – inventory at year-end 20X2)

Question 9.7: Inventory turnover in 20X1

What is the inventory turnover in 20X1?

Answer 9.7:  $4,032.60 / ((1,306.70 + 2,273.60) / 2) = 2.253$

(inventory turnover = cost of goods sold / average inventory)

Question 9.8: Inventory turnover in 20X2

What is the inventory turnover in 20X2?

Answer 9.8:  $6,336.55 / ((2,273.60 + 3,308.05) / 2) = 2.270$

(inventory turnover = cost of goods sold / average inventory)

Question 9.9: Gross profit margin in 20X1

What is the gross profit margin in 20X1?

Answer 9.9:  $1 - 4,032.60 / (431 \times 17.30) = 45.92\%$

(gross profit margin =  $1 - \text{cost of goods sold} / \text{net revenue}$ )

Question 9.10: Gross profit margin in 20X2

What is the gross profit margin in 20X2?

Answer 9.10:  $1 - 6,336.55 / (544 \times 18.60) = 37.38\%$

(gross profit margin =  $1 - \text{cost of goods sold} / \text{net revenue}$ )