

Cost and Management Accounting (MGT402) FALL 2024

Assignment No. 01

Assignment Question

A manufacturing company is preparing its cost sheet to manufacture the products in the upcoming week. The company needs to account for various components like direct materials, labor, and factory overheads to arrive at the total cost of goods sold.

Description	Rs
Opening Direct Material	15,000
Net Purchases	105,000
Closing Direct Material	25,000
Direct Labor	65,000
Factory Overhead Cost	95,000
Opening Work in Process	35,000
Closing Work in Process	55,000
Opening Finished Goods	105,000
Closing Finished Goods	15,000
Factory overhead Applied	200% of direct labor cost
Factory overhead Actual	90,000

With the provided information, please complete the following tasks:

Required:

1. Calculate the cost of goods sold at normal.
2. Calculate the cost of goods sold at actual.
3. Adjust the under/over-applied factory overhead (FOH) cost to the entire production.

Solution:

1. Calculate the Cost of Goods Sold at Normal

Now, we will do step by step calculation:

1. Direct Material Used:

$$\begin{aligned}\text{Direct material used} &= \text{Opening direct material} + \text{Net purchases} - \text{Closing direct material} \\ &= 15,000 + 105,000 - 25,000 = 95,000\end{aligned}$$

2. Total Manufacturing Costs:

Total Manufacturing costs = Direct material used + Direct labor + Factory overhead applied
Factory overhead applied is 200% of Direct labor, so:

$$\begin{aligned}\text{Factory overhead applied} &= 200\% \times 65,000 = 130,000 \\ &= 95,000 + 65,000 + 130,000 = 290,000\end{aligned}$$

3. Cost of Goods Manufactured (COGM):

$$\begin{aligned}\text{COGM} &= \text{Opening work in process} + \text{Total Manufacturing costs} - \text{Closing work in process} \\ &= 35,000 + 290,000 - 55,000 = 270,000\end{aligned}$$

4. Cost of Goods Available for Sale (COGAS)

$$\begin{aligned}\text{COGAS} &= \text{Opening finished goods} + \text{COGM} \\ &= 105,000 + 270,000 = 375,000\end{aligned}$$

5. Cost of Goods Sold Normal:

$$\begin{aligned}\text{COGS normal} &= \text{COGAS} - \text{Closing finished goods} \\ &= 375,000 - 15,000 = \mathbf{360,000}\end{aligned}$$

2. Calculate the Cost of Goods Sold at Actual

Now, we will use factory overhead actual instead of factory overhead applied.

Total manufacturing costs actual:

$$\begin{aligned}\text{Total manufacturing costs (actual)} &= \text{Direct material used} + \text{Direct labor} + \text{Factory overhead actual} \\ &= 95,000 + 65,000 + 90,000 = 250,000\end{aligned}$$

Cost of goods manufactured actual:

COGM(actual)=opening work in process+total manufacturing costs(actual)–closing work in process
= 35,000+250,000–55,000 = 230,000

Cost of goods available for sale (actual):

COGAS (actual) = Opening finished goods+COGM (actual)
= 105,000+230,000 = 335,000

Cost of goods sold (actual):

COGS (actual) = COGAS (actual)–closing finished goods
= 335,000–15,000 = **320,000**

3. Adjust the Under/Over-Applied Factory Overhead (FOH)

Under/over-applied FOH = Factory overhead applied–Factory overhead actual
=130,000–90,000 = **40,000** (over-applied)

Adjusted cost of goods sold: since the FOH is over-applied, we subtract this from the normal COGS to adjust.

Adjusted COGS=COGS (normal)–Over-applied FOH
= 360,000–40,000 = 320,000

Adjusted cost of goods sold (with over-applied FOH) **320,000**

Final Result:

Description	Amount (Rs.)
Cost of Goods Sold at Normal	360,000
Cost of Goods Sold at Actual	320,000
Over applied Factory Overhead	40,000

THANK YOU

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