



IQRA NATIONAL UNIVERSITY

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Question 1st

Quantity and equivalent production schedules, Adjustment for lost units. Lotcame laboratories produce, an antibiotic product in its three producing departments. The following quantitative and cost data have been made available: **(Marks 30)**

	Departments		
	Blending	Testing	Terminal
Production Data			
Started into production	8000 Kg	5300 Kg	3250 Kg
Transferred to next department	5300	3250	
Transferred to finished goods store room			1900
In process (90% material, 2/3 labor and FOH)	2400		
In process (100% material, 3/4 labor and FOH)		1700	900
Cost Charged to department			
Materials	\$22,670	\$8,980	\$14,500
Labor	11,160	5,016	12,020
FOH	5,600	2,290	5,000

Required:

- a) A quantity schedule for each of the three departments.

Solution 1st "A"

Quantity Schedule:

	Blending	Testing	Terminal
Started into Production	8000		
Unit received From Preceding Department		5300	3250
Units transferred to next department	5300	3250	
Unit transferred to finished goods store room			1900
Units still in process	2400	1700	900
Units lost in process	300	350	450
	8000	5300	3250

b) An equivalent production schedule for each of the three departments

Solution 1st "B"

Equivalent production Schedule

	Blending	Department	Testing	Department	Terminal	Department
	Material	Labor and FOH	Prior department & Material	Labor and FOH	Prior Department Material	Labor & FOH
Transferred out	5300	5300	3250	3250	1900	1900
Units still in process	2160	1600	1700	1275	900	675
	7460	6900	4950	4525	2800	2575

c) The unit cost of FOH in the terminal department

Solution 1st "C"

Unit Cost FOH in Terminal Department

$$\frac{5000}{2575} = 1.941$$

d) The lost unit cost in the testing department, if the unit cost transferred in from the blending department is \$5.00

Solution 1st "D"

lost Unit Cost in Testing Department

$$5 \times 5300 = 26500 \quad \text{Cost Transferred in from Tending Department}$$

$$\frac{26500}{5300} - 350 = 5.353$$

5.353 New Unit Cost

- 5

0.353 Lost Unit Cost

Question 2nd

what is job order costing? Explain with example?

Answer:

Job Order Costing

Definition of Job Order Costing

Job order costing system is generally used by companies that manufacture a number of different products. It is a widely used costing system in manufacturing as well as service industries.

Manufacturing companies using job order costing system usually receive orders for customized products and services. These customized orders are known as jobs or batches. A clothing factory, for example, may receive an order for men shirts with particular size, color, and design.

When companies accept orders or jobs for different products, the assignment of cost to products becomes a difficult task. In these circumstances, the cost record for each individual job is kept because each job have a different product and, therefore, different cost associated with it.

The per unit cost of a particular job is computed by dividing the total cost allocated to that job by the number of units in the job. The per unit cost formula is given below:

Per unit cost = Total cost applicable to job / Number of units in the job

Job order costing is extensively used by companies all over the world. According to a survey, 51.1% of manufacturing companies in United States use job order costing.

Examples of manufacturing businesses that use job order costing system include clothing factories, food companies, air craft manufacturing companies etc.

Examples of service businesses that use job order costing system include movie producers, accounting firms, law firms, hospitals etc.

Job cost sheet is a document used to record manufacturing costs and is prepared by companies that use job-order costing system to compute and allocate costs to products and services.

The accounting department is responsible to record all manufacturing costs (direct materials, direct labor, and manufacturing overhead) on the job cost sheet. A separate job cost sheet is prepared for each individual job.

All necessary details about the job and costs incurred to complete the job are written on the job cost sheet.

The information about a job or order that is shown on job cost sheet usually includes job number, product name, starting date, completing date, number of units completed etc.

The information about manufacturing costs that is shown on job cost sheet usually includes materials requisition number, cost of direct materials issued, time tickets, direct labor hours, direct labor rate per hour and total cost manufacturing overhead rate per direct labor or machine hour and total cost etc.

Job cost sheet is not only used to charge cost to jobs but is also a part of the company's accounting record. It is used as a subsidiary ledger to the work in process account because it contains all details about the job in process.



Question 3rd

Briefly define LIFO and FIFO? Explain with examples?

Answer:

LIFO vs FIFO

Understanding LIFO and FIFO

The accounting method that a company uses to determine its inventory costs can have a direct impact on its key financial statements (financials) balance sheet, income statement, and statement of cash flows. The U.S. generally accepted accounting principles (GAAP) allow businesses to use one of several inventory accounting methods: first-in first-out (FIFO) last-in first-out (LIFO) and average cost.

First-In, First-Out (FIFO)

The First-In, First-Out (FIFO) method assumes that the first unit making its way into inventory—or the oldest inventory—is the sold first. For example, let's say that a bakery produces 200 loaves of bread on Monday at a cost of \$1 each, and 200 more on Tuesday at \$1.25 each. FIFO states that if the bakery sold 200 loaves on Wednesday, the COGS (on the income statement) is \$1 per loaf because that was the cost of each of the first loaves in inventory. The \$1.25 loaves would be allocated to ending inventory (on the balance sheet).

Last-In, First-Out (LIFO)

The Last-In, First-Out (LIFO) method assumes that the last or more unit to arrive in inventory is sold first. The older inventory, therefore, is left over at the end of the accounting period. For the 200 loaves sold on Wednesday, the same bakery would assign \$1.25 per loaf to COGS, while the remaining \$1 loaves would be used to calculate the value of inventory at the end of the period.

Average Cost

The average cost method takes the weighted average of all units available for sale during the accounting period and then uses that average cost to determine the value of COGS and ending inventory. In our bakery example, the average cost for inventory would be \$1.25 per unit, calculated as $[(200 \times \$1) + (200 \times \$1.25)]/400$.

LIFO vs. FIFO: Inventory Valuation

The valuation method that a company uses can vary across different industries. Below are some of the differences between LIFO and FIFO when considering the valuation of inventory and its impact on COGS and profits.

LIFO

Since LIFO uses the most recently acquired inventory to value COGS, the leftover inventory might be extremely old or obsolete. As a result, LIFO doesn't provide an accurate or up-to-date value of inventory because the valuation is much lower than inventory items at today's

prices. Also, LIFO is not realistic for many companies because they would not leave their older inventory sitting idle in stock while using the most recently acquired inventory.

For example, a company that sells seafood products would not realistically use their newly-acquired inventory first in selling and shipping their products. In other words, the seafood company would never leave their oldest inventory sitting idle since the food could spoil, leading to losses.

As a result, LIFO isn't practical for many companies that sell perishable goods and doesn't accurately reflect the logical production process of using the oldest inventory first.

When sales are recorded using the LIFO method, the most recent items of inventory are used to value COGS and are sold first. In other words, the older inventory, which was cheaper, would be sold later. In an inflationary environment, the current COGS would be higher under LIFO because the new inventory would be more expensive. As a result, the company would record lower profits or net income for the period. However, the reduced profit or earnings means the company would benefit from a lower tax liability.

FIFO

FIFO can be a better indicator of the value for ending inventory because the older items have been used up while the most recently acquired items reflect current market prices. For most companies, FIFO is the most logical choice since they typically use their oldest inventory first in the production of their goods, which means the valuation of COGS reflects their production schedule.

For example, the seafood company, mentioned earlier, would use their oldest inventory first (or first in) in selling and shipping their products. Since the seafood company would never leave older inventory in stock to spoil, FIFO accurately reflects the company's process of using the oldest inventory first in selling their goods.

When sales are recorded using the FIFO method, the oldest inventory—that was acquired first—is used up first. FIFO leaves the newer, more expensive inventory in a rising-price environment, on the balance sheet. As a result, FIFO can increase net income because inventory that might be several years old—which was acquired for a lower cost—is used to value COGS. However, the higher net income means the company would have a higher tax liability.

LIFO and FIFO: Impact of Inflation

If inflation were non-existent, then all three of the inventory valuation methods would produce the same exact results. Inflation is a measure of the rate of price increases in an economy. When prices are stable, our bakery example from earlier would be able to produce all of its bread loaves at \$1, and LIFO, FIFO, and average cost would give us a cost of \$1 per loaf. However, in the real world, prices tend to rise over the long term, which means that the choice of accounting method can affect the inventory valuation and profitability for the period.

Average Cost

The average cost method produces results that fall somewhere between FIFO and LIFO. However, please note that if prices are decreasing, the opposite scenarios outlined above play out. In addition, many companies will state that they use the "lower of cost or market" when valuing inventory. This means that if inventory values were to plummet, their valuations would represent the market value (or replacement cost) instead of LIFO, FIFO, or average cost.

Example of LIFO vs. FIFO

In the tables below, we use the inventory of a fictitious beverage producer called ABC Bottling Company to see how the valuation methods can affect the outcome of a company's financial analysis.

The company made inventory purchases each month for Q1 for a total of 3,000 units. However, the company already had 1,000 units of older inventory that was purchased at \$8 each for an \$8,000 valuation. In other words, the beginning inventory was 4,000 units for the period.

The company sold 3,000 units in Q1, which left an ending inventory balance of 1,000 units or (4,000 units - 3,000 units sold = 1,000 units).