Inventories

What Is Inventory Accounting?

Inventory accounting is the body of accounting that deals with valuing and accounting for changes in inventoried assets. A company's inventory typically involves goods in three stages of production: raw goods, in-progress goods, and finished goods that are ready for sale. Inventory accounting will assign values to the items in each of these three processes and record them as company assets. Assets are goods that will likely be of future value to the company, so they need to be accurately valued in order for the company to have a precise valuation.

The Institute of Chartered Accounts of India in its Accounting Standard No. 2 defines inventory as:

"Tangible property held (i) for the sale in the ordinary course of business or (ii) in the process of production for such sale, or (iii) for consumption in the production of goods or service for sale, including maintenance, supplies and consumables other than machinery spares."

Important Points

- Inventory accounting determines the specific value of assets at certain stages in their development and production.
- This accounting method ensures an accurate representation of the value of all assets, company-wide.
- Careful examination by a company of these values could lead to increased profit margins at each stage of the product.

Inventory items at any of the three production stages can change in value. Changes in value can occur for a number of reasons including depreciation, deterioration, obsolescence, change in customer taste, increased demand, and decreased market supply, and so on. An accurate inventory accounting system will keep track of these changes to inventory goods at all three production stages and adjust company asset values and the costs associated with the inventory accordingly.

How Inventory Accounting Works

GAAP requires inventory to be properly accounted for according to a very particular set of standards, to limit the potential of overstating profit by understating inventory value. Profit is revenue minus costs. Revenue is generated by selling inventory. If the inventory value (or cost) is understated, then the profit associated with the sale of the inventory may be overstated. That can potentially inflate the company's valuation.

The other item the GAAP rules guard against is the potential for a company to overstate its value by overstating the value of inventory. Since inventory is an asset, it affects the overall value of the company. A company which is manufacturing or selling an outdated item might see a decrease in the value of its inventory. Unless this is accurately captured in the company financials, the value of the company's assets and thus the company itself might be inflated.

Advantages of Inventory Accounting

The main advantage of inventory accounting is to have an accurate representation of the company's financial health. However, there are some additional advantages to keeping track of the value of items through their respective production stages. Namely, inventory accounting allows businesses to assess where they may be able to increase profit margins on a product at a particular place in that product's cycle.

This can be seen most prominently in products that require exceptional time or expense in secondary stages of production. Items such as pharmaceuticals, machinery, and technology are three products that require large amounts of expense after their initial designing. By evaluating the value of the product at a certain stage—such as clinical trials or transportation of the product—a company can adjust the variables at that stage to keep the product value the same while increasing their profit margins by decreasing expenses.

The types of inventory usually held by these two kinds of enterprise are as follows:

(A) Manufacturing Enterprises:

(i) Finished goods inventory—goods produced, completed and kept ready for sale.

(ii) Work in Process inventory—goods in the process of being produced but not yet completed as finished goods. When completed, work in process inventory becomes finished goods inventory.

(iii) Raw materials Inventory—Items purchased or acquired for using in making finished goods. Such items are known as raw materials inventory until used. When raw materials are used, they become the part of the work in process inventory. (Work in process includes cost such as raw materials, direct labour and factory overhead).

(B) Merchandising Enterprises:

In merchandising or retailing firms, inventory consists of goods (generally known as merchandise) held for resale in the normal course of business. The goods are acquired in a finished condition and are ready for sale without further processing.

2. Need for Inventories:

Inventory is one of the major problems that accountants face today. It is difficult to value it in terms of cash. It is almost impossible to assess its value in terms of future profits. The basic reason for holding inventories is that it is physically impossible and economically impractical for each inventory item to arrive exactly where it is needed and exactly when it is needed.

Adam and Ebert have listed the following reasons for carrying inventories:

Inventory is not purchased as investment or to hold or to realise a gain from possession but rather to sell and realise a gain from resale. In fact, each purchase of saleable goods is in

anticipation of the very next sale. Inventory should be considered as an investment and should compete for funds with other investments contemplated by the business firm.

Inventory represents type of business insurance which assures the company that it will not have to close down due to shortages of saleable goods. Inventory is a variable cost insurance. That is the cost of this insurance will vary in the same direction as the value of sales.

As the sales increase the company will find it necessary to maintain a larger and larger inventory to meet the expanded sale volume. The variable cost the increased capital investment, necessary to maintain the continuing operations should not be deferred and charged against later revenues but rather should be charged against the current period of which it is a direct factor.

It is often claimed that, for seasonal industries, it is advisable to have adequate opening inventories. If attractive quantity discounts are available, a business enterprise may prefer to buy in excess of its current sales requirements and can build up additional inventories.

Many firms—especially those that sell in seasonal markets—buy in excess of their needs when supply prices are favourable. They store the goods and can then maintain sales during a period of un-favourable supply prices.

Walgenbach et al. observe:
"Progressive firms take into account customer preferences, competitors' merchandising patterns, and favourable market situations in determining inventory size and balance, but they must also consider the cost of carrying large inventories. Often, savings obtained by purchasing in large quantities or under favourable market conditions may be more than offset by increased carrying costs. Storage and handling costs for large inventories can increase substantially. In addition, the firm may suffer losses from inventory deterioration and obsolescence. Finally inventories tie up working capital that might be used more profitably elsewhere. These latter factors often cause merchandisers to contract inventory during recessionary periods."

Objectives of Inventory Measurement:
The measurement of inventory has a significant effect on income determination and financial position of a business enterprise.

The American Institute of Certified Public Accountants (USA) states:
"A major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues."

It is significant to observe that a direct relationship exists between cost of goods sold and closing inventory. Costs of goods sold is measured by deducting closing inventory from cost of goods available for sale. Because of these relationships, it may be said that the higher the cost of closing inventory, the lower the cost of goods sold will be and the higher the resulting net income.

On the contrary, the lower the value of closing inventory, the higher the cost of goods sold and the lower the net income. Items which are not in the closing inventory are considered as sold and become the part of cost of goods sold.

In this way, measurement of closing inventory influences the income statements (through influencing cost of goods, and net income) and balance sheet because inventory appears as current assets on the balance sheet.

Also, closing inventory influences net income of not only the current period but it also influences the net income of the next accounting period because closing inventory of the current period becomes the opening inventory for the next period and thus becomes cost of goods sold.

Since closing inventory determines cost of goods sold, the most common objective of inventory measurement is the attempt to match costs with related revenues in order to compute net income within the traditional accounting structure. The relationship of inventories to the process of income measurement is similar to the common characteristics of prepaid expenses and plant and equipment.

The expression matching costs against revenues means determining what portion of the cost of goods available for sale should be as cost of the period and deducted from the revenue of the current period and what portion should be carried (as inventory) to be matched against the revenue of the following period.

Other things remaining the same, i.e., if all other items appearing on an income statement are constant and also income tax rates do not change, any change in the amount of closing inventory will bring similar change in the amount of reported net income. This is illustrated in the following data taken to explain this situation.

In the above example, it can be noticed that in all four situations, (A, B, C, D) sale, opening inventory, purchases are identical. As the value of closing inventory changes among the four situations, net income also changes, to the extent the closing inventory increases or decreases. For instance, closing inventory increases by Rs. 2 lakhs from situation A to B, from B to C, C to D, so net income also goes up by Rs. 2 lakhs.

A second objective of inventory measurement is to state the fair value of inventory which appears as current assets on the balance sheet. This, along with other assets, reflect the value of assets to the firm and in turn, the financial position of a business enterprise.

Further, the value of inventory will help permit inventory and other users to predict the future cash flows of the firm. This can be accomplished from two points of view.

First, the amount of inventory resources available will support the inflow of cash through their sale in the ordinary course of business.

Second, the amount of inventory resources available will, under normal circumstances, have an effect on the amount of cash required during the subsequent period to acquire the merchandise that will be sold during the period.

Methods of Inventory Costing:

The pricing or costing of inventory is one of the most interesting and most widely debated problems in accounting. Generally, inventories are priced at their cost in conformity with the cost concept.

According to AICPA (USA), **"the primary basis of accounting for inventory is cost, which is the price paid or consideration given to acquire an asset. As applied to inventories, cost means, in principle, the sum of the applicable expenditures and charges directly or indirectly incurred in bringing an article to its existing condition and location"**.

The cost of inventory, as per the above definition and in practice as well, includes the following costs:

(i) Invoice price less cash discounts;

(ii) Freight or transportation, insurance including insurance in transit and;

(iii) Applicable taxes and tariffs

Other costs such as those for purchasing, receiving and storage should theoretically be included in inventory cost. In practice, however, it is so difficult to allocate these costs to specific inventory items and also sometimes these costs are often not material in amount that they are in most cases considered expenses of the accounting period instead of an inventory cost.

Inventory costing is quite simple when acquisition prices remain constant. When prices of identical lot of purchases vary in the accounting period, it is difficult to say which price should be used to measure the closing inventory.

Also, when identical items are bought and sold, it is often impossible to tell which items have been sold and which are still in inventory. For this reason, it is necessary to make assumption about the order in which items have been sold.

Two terms—goods flow and cost flow—are useful in considering the problems of pricing inventories under fluctuating prices. Goods flow refers to the actual physical movement of goods in the firm's operations. Cost flow is the real or assumed association of costs with goods either sold or in inventory. The assumed cost flow may or may not be the same as the actual goods flow.

Though this statement or practice may appear strange, there is nothing wrong or illegal about this practice. Generally accepted accounting principles (GAAP) accept the use of an assumed cost flow that does not reflect the real physical movement of goods. In fact, the assumption about the cost flow is more important to goods flow as the former helps in determining net income which is the major objective of inventory valuation.

The following are generally accepted methods of inventory pricing, each based on a different assumption of cost flow:

A. Cost Price Methods:

1. First-in, First-out (FIFO)

2. Last-in, First-out (LIFO)

3. Highest-in, First-out (HIFO)

4. Base Stock Price

B. Average Price Methods:

1. Simple average

2. Weighted average

3. Periodic simple average

4. Periodic weighted average

5. Moving simple average method

6. Moving weighted average method

C. Normal Price Methods:

1. Standard price

2. Inflated price

3. Replacement or market price

D. Specific Identification Method.

Consistency in the Valuation of Inventory:

The principle of consistency is one of basic concepts underlying reliable financial statements. This principle means that once a company has adopted a particular accounting method, the company should follow that method consistently rather than switch methods from one year to the next.

If a company ignores the principle of consistency in accounting for inventories, it could cause its net income for any given year to increase or decrease merely by changing its method of inventory valuation. The principle of consistency does not mean that every company in an industry must use the same accounting method; it does mean that a given company should not switch year after year from one accounting method to another.

It should be understood that a company has considerable latitude in selecting a method of inventory valuation best suited to its needs. The principle of consistency comes into a play after a given method has been selected. It is also true that change from one inventory method to another will usually cause reported income to change significantly in the year in which the change is made.

Frequent switching of methods would make the income statement undependable as a means of portraying trends in operating results. Because of the principle of consistency, the user of financial statements is able to assume that the company has followed the same accounting methods it used in the preceding year.

Thus, the value of financial statements is increased because they enable the user to make reliable comparison of the results achieved from year to year.

The principle of consistency does not mean that a business can never change its method of inventory valuation. However, when a change is made, the effects of the change upon

reported net income should be disclosed fully in the footnotes accompanying the financial statements.

Adequate disclosure of all information necessary for the proper interpretation of financial statements is another basic principle of accounting. Even when the same method of inventory valuation is being followed consistently, the financial statements should include a disclosure valuation method in use.

Accounting for Inventories:

There are two principal ways of accounting for inventories:

Perpetual Inventory System:

The perpetual inventory method requires a continuous record of addition to or reductions in material, work-in-progress and cost of goods sold on a day-to-day basis. Such a record facilitates managerial control and preparation of interim financial statements. Physical inventory counts are usually taken at least once a year in order to check on the validity of the accounting records.

The perpetual inventory system may give such additional information as goods ordered, expected delivery date and units costs. Usually, these records are maintained on a quantity basis but values can be included.

It is an essential feature of the perpetual inventory method that items of stock are checked periodically, normally at least once or twice each year. This ensures that the stock records tally with the physical stocks, which is vital if the control procedure, is to function properly.

The perpetual inventory method has the following advantages:

(1) The stock-taking task which is long and costly is avoided under this method. On the other hand, the inventory of different items of materials in accordance with the stores ledger can be promptly prepared for the preparation of the income statement and balance sheet at interim periods if required without a physical inventory being taken.

(2) Management may be informed daily of number of units and the value of each kind of material on hand—information which tends to eliminate delays and stoppage in production.

(3) The investment in materials and supplies may be kept at the lowest point in conformity with operating requirements.

(4) A system of internal check is always in operation and the activities of different departments, such as purchasing, stores and production are continuously checked against each other. This results into detailed and reliable checks on the stores also.

(5) It is not necessary to stop production so as to carry out a complete physical stock-taking.

(6) Perpetual inventory records provide details about materials cost for individual products, jobs, processes, production orders or departments. These information are helpful to management in exercising control over costs.

(7) Discrepancies and errors are promptly discovered and localised and remedial action can be taken to avoid their occurrence in the future.

(8) This method has a moral effect on the staff, makes them disciplined and careful and acts as a check against dishonest actions.

(9) The disadvantages of excessive stock are avoided, such as loss of interest on capital invested in stock, loss through deterioration, risk of obsolescence.

Periodic Inventory System:
Under the periodic method, the entire book inventory is verified at a given date by an actual count of materials on hand. This physical inventory is usually taken near the end of the accounting period. Some firms even suspend plant operations when this is done.

This method provides for the recording of purchases, purchase returns and purchase allowances on a daily basis but does not provide for a continuous inventory or for a daily computation of the goods sold.

At the end of each accounting period, a physical count is made of the quantity of goods on hand and the value of inventory is determined by using an inventory pricing method (FIFO, LIFO or Average Cost) and attaching costs to units counted.

The cost of goods sold is computed by deducting closing inventory from the sum of opening inventory and purchases made during the current period. It is assumed that goods not on hand at the end of accounting period have been sold. There is no system and accounting for shrinkage, losses, theft and waste throughout the accounting period and they can be discovered only after the end of the period.

Taking a physical inventory at the year-end is an important task in the periodic inventory system. It must be ensured that all items have been counted accurately. Counting procedures usually involves teams of people assigned to specific sections of the factory and to inventory storage areas.

Large items are counted individually, while small items may be weight-counted. Counted items are tagged to prevent double counting and information from the tags concerning each item's description and quantity is recorded on the inventory sheet.

Consequences of the Choice of Inventory Methods:
The different inventory valuation methods have their own merits and demerits and it is difficult to suggest which method should be adopted by business enterprises.

In fact, the choice of inventory method depends on the answers relating to the following four questions:
(1) Which method is most likely to maximise the enterprise's net income?

(2) Which method is most likely to minimise the income tax liability and thereby maximise its net cash inflow?

(3) Which method is most likely to have the greatest information value?

(4) Which method is least subject to abuse?

The above factors have been discussed in detail in the following paragraphs:
(1) Income Effects:
Other things being equal, management prefers to report higher income to the company's shareholders rather than small income. Another reason that higher income is more attractive than low income, may be that the company's creditors have imposed restrictions on managerial actions if reported income falls below a specified level.

A third possible reason for showing high rather than low income is that large reported earnings can induce high market prices for the company's shares. Although, research conducted in this area suggests that this can be true if larger cash flows follow as well, many managers apparently believe that the investment market accepts income numbers at face value.

Management's decision to adopt a method should be based on its estimate of the impact of this decision in most future periods rather than in one year only. Whether FIFO or LIFO is likely to maximise net income in most years depends mainly on whether acquisition prices are rising or falling.

In general, FIFO leads to a higher net income than LIFO if prices are rising. Income considerations therefore favour the use of FIFO costing for any item that is subject to a generally rising price trend. But how does the choice affect income in any one year?

The answer depends on a number of factors, mainly the following:
(1) Whether prices this year are higher or lower than the FIFO unit cost of the beginning inventory.

(2) Whether the physical inventory quantity at the end of the year is greater than, equal to, or less than the inventory on hand at the beginning of the year.

(3) Special additional considerations when liquidation takes place that is, when the inventory quantity decreases during the year.

If the inventory quantity increases or remains constant, FIFO income will exceed LIFO income when acquisition prices are increasing, will equal LIFO income when prices are steady, and will be less than LIFO income when prices are falling.

The reason is that LIFO never brings prior-year prices into the income statement if inventories increase or remain constant, whereas FIFO always brings these old prices into the cost of goods sold. If prices are rising, these old prices will be lower than LIFO costs; if prices are falling, the old prices will be higher than current LIFO costs.

(2) Income Tax Effects:
If cash flow is the only consideration, management would be expected to choose the method that would maximise the company's cash flows. A large net cash flow gives management the ability to make the company grow, to pay its employees competitive salaries and wages, to declare cash dividends, and to reward the managers themselves.

The only direct effect of the choice of the inventory method on cash flow is on the company's income taxes. The impact of the FIFO/LIFO choice on taxable income is the same as its impact on the income before income taxes that is reported in the company's financial statements.

If FIFO income is greater than LIFO, FIFO income taxes will be greater than LIFO's —and FIFO cash flow therefore will be smaller than LIFO's. Conversely, in a year in which LIFO income is greater than FIFO income would be, LIFO's cash flow will be less than FIFO's cash flow.

LIFO generally meets the cash flow criterion better than FIFO because the prices of the most products and commodities have been and continue to be on long-term upward trends.

In addition, since most businesses are usually growing, the quantity of inventory that is bought and sold tends to be increasing as well. With a combination of rising prices and

generally rising or steady inventory levels, LIFO produces a greater cost of goods sold, lower income taxes, and a greater cash flow than FIFO.

In practice, management's inventory method decision is usually whether to switch to LIFO from FIFO or average costing, effective in the fiscal year that has just ended. The reason is that FIFO and average costing have been in use much longer than LIFO, and one of them is likely to have been adopted long ago in the company's history.

Whenever price move upward sharply and appear likely to continue rising for a number of years, the tax advantages of LIFO are likely to seem more important to management than its un-favourable income effects.

Although the decision to adopt LIFO is not based on the situation in a single year, the switch tends to be made in a year in which LIFO will reduce taxable income. This means that the LIFO base quantity will be at a low unit cost relative to the year-end LIFO cost, and this cost will carry forward into the future. If the long-term price trend is upward but prices fell during the year just ended, the switch to LIFO would likely to be postponed.

(3) Information Effects:
External users use the data published in financial statements for making economic decision which require predictions about the amount and timing of the company's future income. Inventory costing method with the greatest information value therefore is the method that is the most likely to be useful to those who make these predictions.

Although the precise meaning of information value is not clear, Shillinglaw and Meyer, suggest that the preferable method is the one that comes closest to providing investors and other outsiders with the following:
(a) Cost assigned to the goods sold should help the investor identify the sustainable gross margin—that is, the profit the company can sustain on a continuing basis.

(b) Cost of the inventory on hand should bear a normal relationship to the amount to be realised from a future sale of that inventory.

(a) Sustainable Gross Margin:
Sustainable gross margin is the spread between products' selling prices and replacement costs. As the cost of buying goods increases, the selling price is likely to rise as well. If the selling price does not increase as fast as the unit cost rises, the company's ability to generate cash and pay dividends will be reduced.

The company will also find it difficult to continue to replace the sold goods and to maintain its operating capacity at the previous level; expansion of business is impossible to contemplate. Investors in turn might reasonably conclude that the company is stagnating and losing its competitive edge.

Insights such as these can be obtained by examining income amounts that reflect a company's sustainable gross margin. Measures of net income that do not reflect the spread between selling price and replacement cost may convey erroneous and misleading impressions if they are used in these kind of analyses.

For example, suppose a retailer buys 1000 units of merchandise from a wholesaler at Rs. 10 per unit and sells them to retail customers at a price of Rs. 15 per unit, a margin of Rs. 5 a unit.

If the replacement cost had risen to Rs. 12 at the time of the sale, the sustainable gross margin will be only Rs 3 a unit. Unless conditions change, the gross margin on the next sale of 1000 units will be only Rs. 3 a unit, because the cost of goods sold will be Rs. 12, not Rs. 10 a unit.

Given this argument, the best inventory method is the method which produces a gross margin that best approximates the margin between the current selling price and the current acquisition cost of the items sold. In a period of stable or increasing inventory levels, the LIFO cost of goods sold is likely to be closer than FIFO to the current acquisition cost.

The main disadvantages of LIFO is that the direction and size of the gap between LIFO gross margin and sustainable gross margin are difficult to determine when inventory liquidation takes place. The FIFO cost of goods sold can be closer to current acquisition costs than LIFO if a substantial inventory reduction takes place, bringing lower prior-year prices into the cost of goods sold.

FIFO may also produce better approximations of sustainable gross margin if purchases are made during the year at prices that reflect unusual conditions. For example, if most purchases during the year are made at penalty prices during a strike in suppliers' plants, these will be reflected in their entirety in the LIFO cost of goods sold if the year-end inventory is at or below the beginning-of-year level. The FIFO cost of goods sold in that year may be closer to the normal replacement cost.

In short, LIFO may approximate the current replacement cost of goods sold better than FIFO, but not always. Furthermore, the amount and direction of the error are difficult to estimate without supplemental information.

(b) Inventory Management:

In a strict sense inventories are measured at their historical cost because this shows the amount of resources that have been used to acquire them. Many users of financial statements, however, interpret cost to be a surrogate for the value of companies' inventories.

Although preparers of financial statements disclaim any responsibility for this interpretation, many readers of financial statements would like to use the cost of inventories of companies as the basis for imputing the value of merchandise on hand.

This value, in turn, becomes an important number for investors seeking to predict the company's future cash flows. This can be valid only if the unit costs in the end-of-period inventory reflect current or near-current prices. Prices paid for inventory in the distant past have no relevance to how much can be recovered from their sale today.

The only prices that come close to answering this question are those that could be obtained for the inventory sold in an orderly manner, less selling costs, bad debts, and interest on investment in the inventory in the interim. Alternatively, under certain conditions, current replacement costs could serve as surrogates for the recoverable amounts.

FIFO does a better job of approximating the current replacement cost of inventories than LIFO does. The units' costs in a FIFO inventory are seldom more than a few months old; LIFO inventories, by contrast, may be measured at the unit costs of 10, 20, or even more years in the past.

(4) Scope of Manipulation:

External users of financial statements need assurance that management has few opportunities to affect net income by taking actions that do not affect the company's wealth. FIFO passes this test better than LIFO. For example, suppose a company is approaching the end of its fiscal year with fewer items in inventory than it had at the beginning of the year.

If it takes no action, and LIFO is used, some of the current year's cost of goods sold will be measured at prior year prices. Management can prevent this by buying enough before the end of the year to bring the inventory up to the beginning-of-year level Management therefore is in a position to affect net income by its year-end purchasing decisions. Under FIFO, these purchasing decisions will merely affect the cost of the ending inventory.

The search for the 'best' method of inventory valuation is rendered difficult because the inventory figure is used in both the balance sheet and the income statement, and these two financial statements are intended for different purposes.

An inventory valuation method which gives significant figures for the income statement may thus produce misleading amounts for the balance sheet, whereas a method which produces a realistic figure for inventory on the balance sheet may provide less realistic data for the income statement.

In the income statement the function of the inventory figure is to permit a matching of costs and revenue. In the balance sheet, the inventory and other current assets are regarded as a measure of the company's ability to meet its current debts. For this purpose, a valuation of inventory in line with current replacement cost would appear to be more significant.

It can be argued that the more rapid the turnover rate, the smaller will be the difference between the several methods. Also the smaller the change in prices, the smaller will be the difference between the methods, In fact, if prices are perfectly stable and all lots of merchandise are purchased at the same price, all of the various cost methods will result in the same net income and asset valuation.

Backer concludes:
"In general, a company must monitor the working of its inventory costing methods continuously to make sure that they give meaningful results. Escape hatches such as reduction to lower of cost or market need to be employed or a change in method made whenever results from a previously chosen method go awry The fact that no one inventory cost flow method gives meaningful results under all conditions seems to be a strong reason why uniformity of method would not solve the problem of meaningful inventory costs."

Practical Problems:

PROBLEM 37.

Prepare a stores ledger using FIFO method of pricing the issues of stores from the following information :

2016			Units
Jan. 1	Balance in hand	@₹2	500
4	Issued		300
5	Received	@₹2·25	400
9	Issued		200
16	Issued		50
23	Received	@₹2·50	200
28	Issued		150
30	Received	@₹2·40	50
31	Issued		300

SOLUTION

Stores Ledger Card

Date	Receipts				Issues				Balance			Remarks
	GRN No.	Qty. (units)	Rate ₹	Amount ₹	SR No.	Qty. (units)	Rate ₹	Amount ₹	Qty. (units)	Rate ₹	Amount ₹	
2016												
Jan. 1									500	2·00	1,000	
4						300	2·00	600	200	2·00	400	
5		400	2·25	900					600 (200 + 400)	2·00 2·25	400 900 = 1,300	
9						200	2·00	400	400	2·25	900	
16						50	2·25	112·50	350	2·25	787·50	
23		200	2·50	500					550 (350 + 200)	2·25 2·50	787·50 500·00 = 1,287·50	
28						150	2·25	337·50	400 (200 + 200)	2·25 2·50	450 500 = 950	
30		50	2·40	120					450 (200 + 200 + 50)	2·25 2·50 2·40	450 500 120 = 1,070	
31						300 (200 + 100)	2·25 2·50	450 250 = 700	150 (100 + 50)	2·50 2·40	250 120 = 370	

PROBLEM 39.

Draw up a priced stores ledger card from the following particulars, using LIFO method of valuation of issues :

2016			
July 1	Opening balance	500 pcs.	@ ₹ 2·00
3	Issue	70 „	
4	Issue	10 „	
7	Receipt (from suppliers)	200 „	@ ₹ 2·10
9	Return (from department) from issue dated 3.7.16	20 „	
10	Shortage found	10 „	
13	Issue	70 „	
14	Receipt (from suppliers)	100 „	@ ₹ 2·20
18	Issue	300 „	
26	Receipt (from suppliers)	50 „	@ ₹ 2·00
30	Issue	60 „	

[C.U., B.Com. (Hons.)]

SOLUTION

Stores Ledger Card

Date	Receipts				Issues				Balance			Remarks
	GRN No.	Qty. (units)	Rate ₹	Amount ₹	SR No.	Qty. (units)	Rate ₹	Amount ₹	Qty. (units)	Rate ₹	Amount ₹	
2016 July 1									500	2·00	1,000	
3						70	2·00	140	430	2·00	860	
4						10	2·00	20	420	2·00	840	
7		200	2·10	420					620	2·00 2·10	840 420	1,260
9		20	2·00	40					640	2·00 2·10	880 420	1,300 Return
10						10	2·10	21	630	2·00 2·10	880 399	1,279
13						70	2·10	147	560	2·00 2·10	880 252	1,132
14		100	2·20	220					660	2·00 2·10 2·20	880 252 220	1,352
18						300 (100 + 120 + 80)	2·20 2·10 2·00	220 252 160 632	360	2·00	720	
26		50	2·00	100					410	2·00	820	
30						60	2·00	120	350	2·00	700	

[1] 440 = 420 + 20

Note : (1) An alternative view is to treat the return as a new purchase (but priced at the original price at which it was issued) and enter the same in the stores ledger after the last purchase entry. Subsequent issues will, therefore, be made on that basis.

PROBLEM 45.

The following transactions took place in respect of a raw material during the month of January, 2016 :

Date		Particulars	Kg.	Rate per kg. ₹
Jan.	1	Balance	1,000	9
	2	Purchased	1,500	10
	5	Issued	390	—
	8	Shortage	10	—
	15	Surplus returned by a production department	200	12
	20	Issued	1,000	—
	25	Received from vendor	300	14
	28	Issued	1,200	—
	31	Issued	100	—

You are required to write up the stores ledger account applying the simple average method of pricing issues. *[C.U., B.Com. (Hons.)]*

SOLUTION

***Stores Ledger Account** [Under Simple Average]*

Date	Receipts				Issues				Balance			Remarks
	GRN No.	Qty. (kg.)	Rate ₹	Amount ₹	SR No.	Qty. (kg.)	Rate ₹	Amount ₹	Qty. (kg.)	Rate ₹	Amount ₹	
2016												
Jan. 1									1,000	9·000	9,000	
2		1,500	10·00	15,000					2,500		24,000	
5						390	9·500	3,705	2,110		20,295	
8						10	9·500	95	2,100		20,200	Shortage
15		200	12·00	2,400					2,300		22,600	Return
20						600	10·333	6,200	1,300		12,000	
						400	11·000	4,400				
25		300	14·00	4,200					1,600		16,200	
28						1,100	12·000	13,200	400		1,700	
						100	13·000	1,300				
31						100	13·000	1,300	300		400	

Working Notes :

(1) *Calculation of simple average price :*

For issue on 5th January : $\frac{9 + 10}{2}$ = ₹ 9·50

For shortage on 8th January = ₹ 9·50

For issue on 20th January : $\frac{9 + 10 + 12}{3}$ = ₹ 10·333 for 600 kg.

$\frac{10 + 12}{2}$ = ₹ 11·000 for 400 kg.

(₹ 9 has been excluded as the stock purchased at that price has been exhausted)

For issue on 28th January : $\frac{10 + 12 + 14}{3}$ = ₹ 12·00 for 1,100 kg.

$\frac{12 + 14}{2}$ = ₹ 13·00 for 100 kg.

For issue on 31st January = ₹ 13·00

(2) Surplus returned by a production department on 15th January has been treated as a new receipt.

PROBLEM 47.

The following are the receipts and issues of stores Material Y in a manufacturing concern:

2016

July 1 Opening stock 100 units at ₹ 10 per unit.
2 Issued 25 units to Department A.
7 Received 425 units at ₹ 11 per unit.
10 Issued 200 units to Department B.
12 Returned to stores 10 units from Department A.
15 Returned to vendor 20 units out of the quantity received on 7th.
17 Received 110 units at ₹ 12·50 per unit.
25 Received 100 units at ₹ 10 per unit.
29 Issued 200 units to Department B.
30 Received 100 units at ₹ 11 per unit.

Enter the above transactions in the stores ledger account of Material Y, using the average cost (weighted) method. (Average cost to be calculated correct to two decimal places of a rupee.) *[ICWA, Inter.]*

SOLUTION

Stores Ledger Account [Under Weighted Average]

Date	Receipts				Issues				Balance			Remarks
	GRN No.	Qty. (units)	Rate ₹	Amount ₹	SR No.	Qty. (units)	Rate ₹	Amount ₹	Qty. (units)	Rate ₹	Amount ₹	
2016												
July 1									100	10·00	1,000·00	
2						25	10·00	250·00	75	10·00	750·00	
7		425	11·00	4,675·00					500	10·85	5,425·00	
10						200	10·85	2,170·00	300	10·85	3,255·00	
12		10	10·00	100·00					310	10·82	3,355·00	Return to stores
15						20	11·00	220·00	290	10·81	3,135·00	Return to vendors[1]
17		110	12·50	1,375·00					400	11·28	4,510·00	
25		100	10·00	1,000·00					500	11·02	5,510·00	
29						200	11·02	2,204·00	300	11·02	3,306·00	
30		100	11·00	1,100·00					400	11·02	4,406·00	

Note: (1) Return to vendors on 15th must be at the corresponding purchase price.