CHAPTER - 4

INVENTORIES

Learning objectives

After studying this chapter, you will be able to:

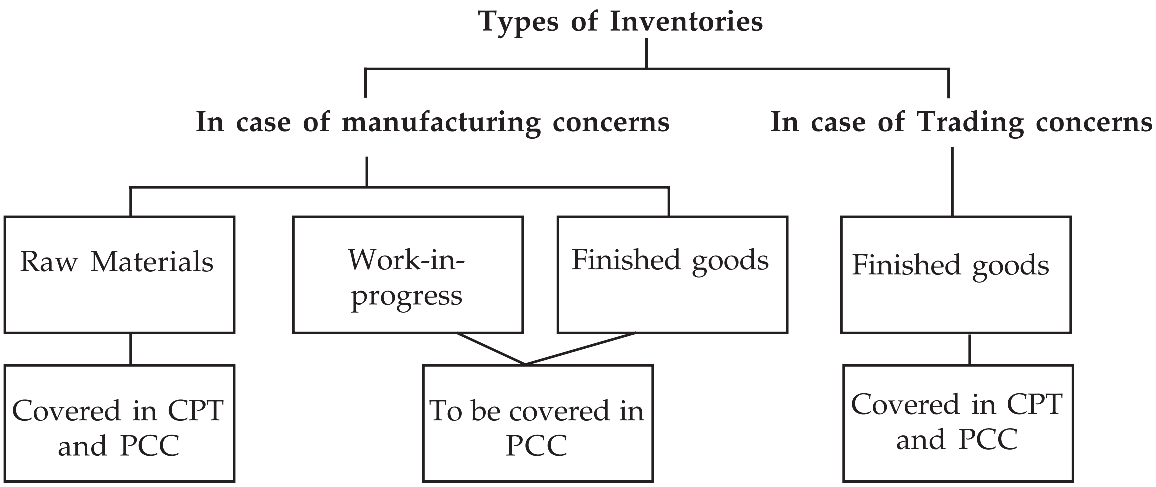
- Understand the meaning of term 'Inventory'.
- Learn the technique of Specific identification, FIFO, Average price, Weighted Average Price and Adjusted Selling Price methods of inventory valuation.
- Understand the methods of inventory record keeping and comprehend the intricacies relating to stock taking.

1. MEANING

Inventory can be defined as tangible property held for sale in the ordinary course of business, or in the process of production for such sale, or for consumption in the production of goods or services for sale, including maintenance supplies and consumables other than machinery spares. Inventories are assets: (a) held for sale in the ordinary course of business; (b) in the process of production for such sale; (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services. Inventories encompass goods purchased and held for resale, for example merchandise (goods) purchased by a retailer and held for resale, or land and other property held for resale. Inventories also include finished goods produced, or work in progress being produced, by the enterprise and include materials, maintenance supplies, consumables and loose tools awaiting use in the production process. However, inventories do not include machinery spares which can be used only in connection with an item of fixed asset and whose use is expected to be irregular; such machinery spares are generally accounted for as fixed assets.

The types of inventories are related to the nature of business. The inventories of a trading concern consist primarily of products purchased for resale in their existing form. It may also have an inventory of supplies such as wrapping paper, cartons, and stationery. The inventories of manufacturing concern consist of several types of inventories: raw material (which will become part of the goods to be produced), parts and factory supplies, work-in-process (partially completed products in the factory) and, of course, finished products.

At the year end every business entity needs to ascertain the closing balance of stock which comprise of stock of raw material, work-in-progress, finished goods and miscellaneous items. Value of closing stock is put at the credit side of the Trading Account and asset side of the Balance Sheet. So before preparation of final accounts, the accountant should know the value of stock of the business entity. However, we shall restrict our discussion on inventory valuation for raw materials of a manufacturing concern and goods of a trading concern. The valuation of other types of inventories will be covered in Advanced Accounting and Cost Accounting subject at Integrated Professional Competence Course.



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2. INVENTORY VALUATION

A primary issue in accounting for inventories is the determination of the value at which inventories are carried in the financial statements until the related revenues are recognized. Inventory is generally the most significant component of the current assets held by a trading or manufacturing enterprise. It is widely recognised that the major asset that affects efficiency of operations is inventory. Both excess of inventory and its shortage affects the production activity, and the profitability of the enterprise whether it is a manufacturing or a trading business. Proper valuation of inventory has a very significant bearing on the authenticity of the financial statements. The significance of inventory valuation arises due to various reasons as explained in the following points:

(i) Determination of Income

The valuation of inventory is necessary for determining the true income earned by a business entity during a particular period. To determine gross profit, cost of goods sold is matched with revenue of the accounting period. Cost of goods sold is calculated as follows:

Cost of goods sold = Opening stock + Purchases + Direct expenses - Closing stock.

Inventory valuation will have a major impact on the income determination if merchandise cost is large fraction of sales price. The effect of any over or understatement of inventory may be explained as:

(a) When closing inventory is overstated, net income for the accounting period will be overstated.

(b) When opening inventory is overstated, net income for the accounting period will be understated.

(c) When closing inventory is understated, net income for the accounting period will be understated.

(d) When opening inventory is understated, net income for the accounting period will be overstated.

The effect of misstatement of inventory figure on the net income is always through cost of goods sold. Thus, proper calculation of cost of goods sold and for that matter, proper valuation of inventory is necessary for determination of correct income.

(ii) Ascertainment of Financial Position

Inventories are classified as current assets. The value of inventory on the date of balance sheet is needed to determine the financial position of the business. In case the inventory is not properly valued, the balance sheet will not disclose the truthful financial position of the business. 'Inventory' also affects analysis of financial statements as various ratios based on current assets, net working capital, total assets considering stock as one of the variables require inventory as its constituents.

(iii) Liquidity Analysis

Inventory is classified as a current asset, it is one of the components of net working capital which reveals the liquidity position of the business. Current ratio which studies the relationship between current assets and current liabilities is significantly affected by the value of inventory.

(iv) Statutory Compliance

Schedule VI of the Indian Companies Act, 1956 requires that the details of quantities of each class of goods along with method of valuation of raw material, work-in-progress and finished goods should be disclosed in the financial statements. As per the requirements of the Accounting Standards, the financial statements should disclose (a) the accounting policies adopted in measuring inventories, including the cost formula used, and (b) the total carrying amount of inventories and its classification appropriate to the enterprise. The common classification of inventories are raw materials; work-in-progress; finished goods; stores and spares and loose tools.

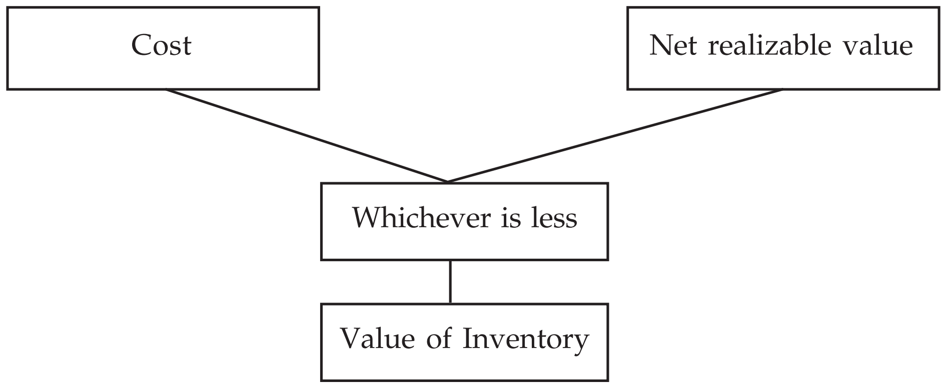
3. BASIS OF INVENTORY VALUATION

Inventories should be generally valued at the lower of cost or net realizable value. Pricing of inventory assumes significance when different lots are purchased at varying prices at different timings. In case of no change in price level, determination of historical cost of inventory shall not pose any major problem.

Cost The amount of expenditure incurred on acquisition of goods.

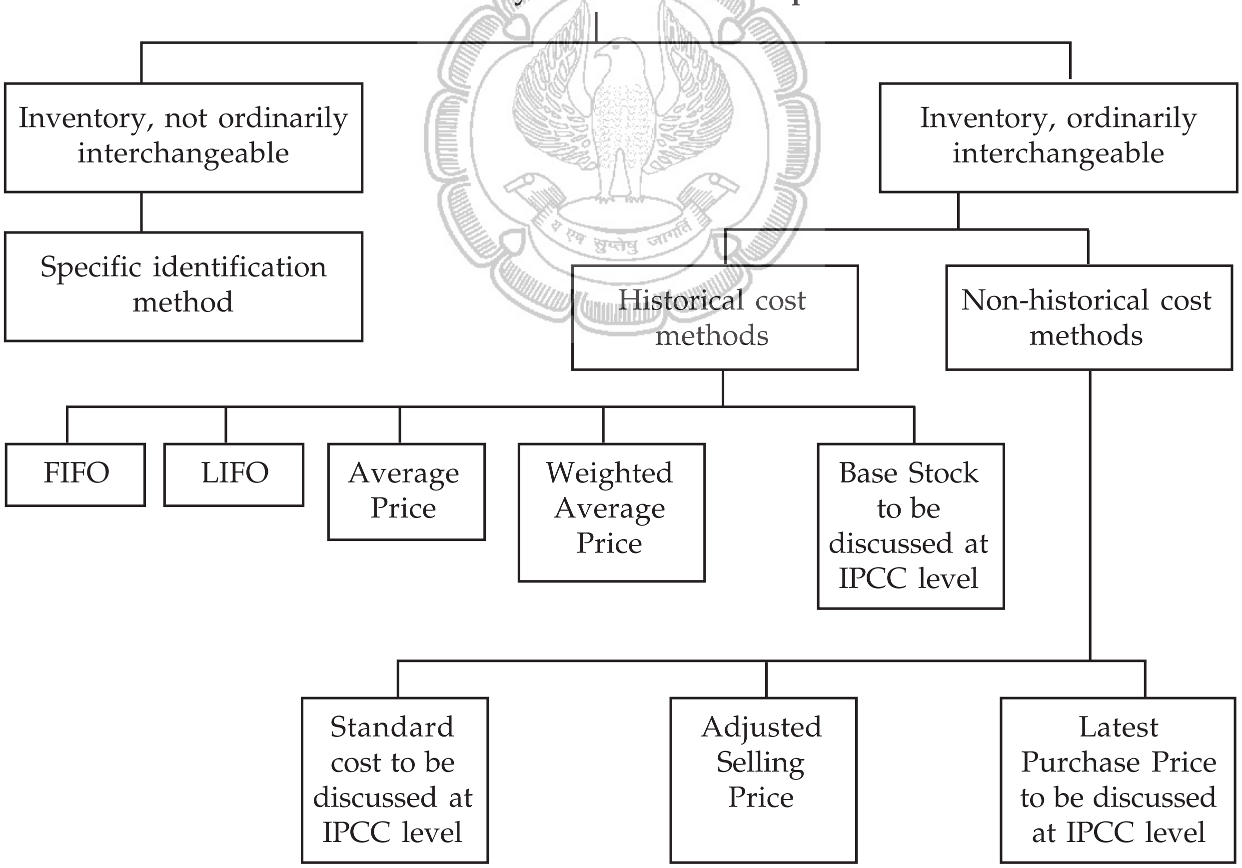
Net realizable value : This is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. An assessment is made of net realisable value as at each balance sheet date. Inventories are usually written down to net realisable value on an item-by-item basis. In some circumstances, however, it may be approximate to group similar or related items.

Basis of Inventory Valuation



4. TECHNIQUES OF INVENTORY VALUATION

Inventory Valuation Techniques



4.1 HISTORICAL COST METHODS

Under historical cost methods, cost of goods refers to the historical cost of acquisition of goods. It is the value of resources required to obtain the inventory in its present condition and includes "cost of purchase and other costs incurred in bringing the inventories up to their present location and condition".

Costs of purchase

The purchase price including duties and taxes (other than those which are subsequently recoverable by the enterprise from the taxing authorities), freight inwards and other expenditure directly attributable to the acquisition of goods. Trade discounts, rebates, duty drawbacks and other similar items are deducted in determining the costs of purchase.

Other Costs

Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. While determining cost of inventories, certain costs are excluded and recognised as expenses in the period in which they are incurred. Examples are: (i) costs arising due to abnormal amount of wasted materials, labour or other production costs, and (ii) storage costs are excluded in calculation of cost of inventories unless these costs are necessary in the production process prior to a further production stage, (iii) administrative overheads that do not contribute to bring the inventories to their present location and condition; and (iv) selling and distribution costs. Interest and other borrowing costs are usually considered as not relating to bringing the inventories to their present location and condition and are, therefore, usually not included in the cost of inventories.

There is no unique formula for determination of historical cost of inventories. The different techniques for valuation of inventory have been discussed below:

(i) Specific Identification Method

Pricing under this method is based on actual physical flow of goods. It attributes specific costs to identified goods and requires keeping different lots purchased separately to identify the lot out of which units in stock are left. The historical costs of such specific purpose inventories may be determined on the basis of their specific purchase price or production cost.

This method is generally used to ascertain the cost of inventories of items that are not ordinarily interchangeable, otherwise it requires the use of FIFO (First in first out) or weighted overage price/average price formula.

(ii) FIFO (First in first out) Method

The actual issue of goods is usually from the earliest lot on hand. The stock of goods on hand therefore, consists of the latest consignments. Thus, the closing inventory is valued at the price paid for such consignments.

Now, let us take an example to understand the application of FIFO method.

Illustration 1

A manufacturer has the following record of purchases of a condenser, which he uses while manufacturing radio sets:

Date	Quantity (units)	Price per unit
Dec. 4	900	5.00
Dec. 10	400	5.50
Dec. 11	300	5.50
Dec. 19	200	6.00
Dec. 28	800	4.75
	2,600	

1,600 units were issued during the month of December.

Solution

The closing stock is 1,000 units and would consist of -

800 units received on 28th December; and

200 units received on 19th December as per FIFO

	Rs.
The value of 800 units @ Rs. 4.75	3,800
The value of 200 units @ Rs. 6.00	1,200
Total	5,000

(iii) LIFO (Last in first out) Method

Though actual issues are made out of the earliest lot on hand to prevent unnecessary deterioration in value, it is sometimes assumed that the issue to be valued is to be according to the price paid for the latest consignments on hand. The closing stock then is assumed to consist of earlier consignments and its value is then calculated according to such consignments. This method of valuing stock is known as LIFO basis. Under this basis, goods issued are valued at the price paid for the latest lot of goods on hand which means stock of goods in hand is valued at price paid for the earlier lot of goods. In the absence of details of issue, the price paid for the earliest consignments is used for valuing closing stock.

LIFO method is based on an irrational assumption that inventories entering last in the stores are issued or consumed first. However, the flow of goods which is generally observed in business entities is contradictory to this assumption. Therefore, LIFO method is no longer adopted for valuing inventories. Generally, in practice, FIFO and Average Price Method are popular among the business entities.

(iv) Average Price Method

Average price for computing value of stock is a very simple approach. (All the different prices are added together and then divided by the number of prices). The closing stock is then valued according to the price ascertained.

Illustration 2

In the same example of a manufacturer of radio sets given earlier, let us calculate the value of closing inventory using Average Price Method:

Record of purchases

Date	Quantity (units)	Price per unit
Dec. 4	900	5.00
Dec. 10	400	5.50
Dec. 11	300	5.50
Dec. 19	200	6.00
Dec. 28	800	4.75
	2,600	

Record of issues

Date	Quantity (units)
Dec. 5	600
Dec. 12	400
Dec. 29	600
Total	1,600

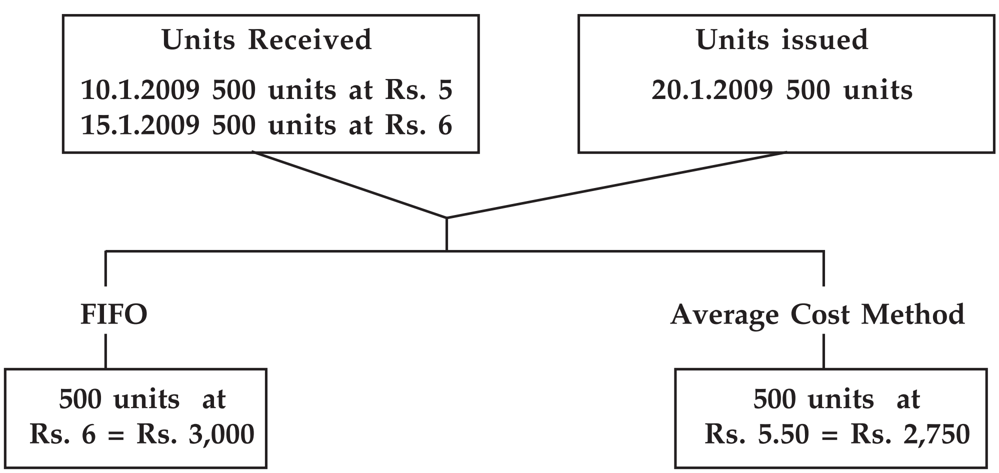
Solution

The simple average in this question is:

[(5.00 + 5.50 + 5.50 + 6.00 + 4.75)/5] = 26.75/5 = Rs. 5.35

1,000 units valued at Rs. 5.35 would be Rs. 5,350.

Let us try to analyse the impact of FIFO and Average price method with the help of the following chart:



(v) Weighted Average Price Method

However, it is more logical to compute weighted average price using the quantities purchased in a lot as weights. Under weighted average price method, cost of goods available for sale during the period is aggregated and then divided by number of units available for sale during the period to calculate weighted average price per unit. Thus

$$\text{Weighted average price per unit} = \frac{\text{Total cost of goods available for sale during the period}}{\text{Total number of units available for sale during the period}}$$

Closing stock = No. of units in stock X Weighted average price per unit

Cost of goods sold = No. of units sold X Weighted average price per unit.

Illustration 3

On the basis of the datas given in illustration 1, calculate the weighted average price and also the value of closing inventory by weighted average price method.

Solution

The computation of weighted average price in the referred example is shown below:

Quantity	Rate	Price paid
units	*Rs.*	*Rs.*
900	5.00	4,500
400	5.50	2,200
300	5.50	1,650
200	6.00	1,200
800	4.75	3,800
2,600	Total	13,350

$$\text{Weighted average price} = \frac{\text{Rs. } 13{,}350}{2{,}600}$$

$$= \text{Rs. } 5.135 \text{ per unit}$$

Value of closing inventory of 1,000 units = 1,000 x Rs. 5.135 = Rs. 5,135

It should be noted that if a stock ledger is maintained, recording receipts/issues daily, the average would be different. A new average rate would be calculated on receiving a fresh consignment. Answer on that basis would be as under:

Date	Receipts			Issues			Balance		
Dec.	Qty. Units	Rate Rs.	Amount Rs.	Qty. Units	Rate Rs.	Amount Rs.	Qty. Units	Rate Rs.	Amount Rs.
4	900	5.00	4,500				900	5.00	4,500
5				600	5.00	3,000	300	5.00	1,500
10	400	5.50	2,200				700	5.28	3,700
11	300	5.50	1,650				1,000	5.35	5,350
12				400	5.35	2,140	600	5.35	3,210
19	200	6.00	1,200				800	5.51	4,410
28	800	4.75	3,800				1,600	5.13	8,210
29				600	5.13	3,078	1,000	5.13	5,132

4.2 NON-HISTORICAL COST METHODS

Non-historical cost methods do not consider the historical cost incurred to acquire the goods. Non- historical cost methods include Adjusted Selling Price method, Standard Cost and Latest Purchase Price method. Adjusted Selling Price method can be explained as follows:

(i) Adjusted selling price method

This method is also called retail inventory method. It is used widely in retail business or in business where the inventory comprises of items, the individual costs of which are not readily ascertainable. The use of this method is appropriate for measuring inventories of large numbers of rapidly changing items that have similar margins and for which it is impracticable to use other costing methods. The cost of the inventory is determined by reducing from the sales value of the inventory the appropriate percentage of gross margin. The percentage used takes into consideration inventory which has been marked below its original selling price. An average percentage for each retail department is often used. The calculation of the estimated gross margin of profit may be made for individual items or groups of items or by departments, as may be appropriate to the circumstances.

Illustration 4

M/s X, Y and Z are in retail business, following information are obtained from their records for the year ended 31st March, 2009:

Goods received from suppliers	
(subject to trade discount and taxes)	Rs. 15,75,500
Trade discount 3% and sales tax 11%	
Packaging and transportation charges	Rs. 87,500
Sales during the year	Rs. 22,45,400
Sales price of closing inventories	Rs. 2,35,000

Find out the historical cost of inventories using adjusted selling price method.

Solution

Determination of cost of purchases:

Goods received from suppliers	Rs.	15,75,500
Less : Trade discount 3%	Rs.	47,265
	Rs.	15,28,235
Add : Sales Tax 11%	Rs.	1,68,106
	Rs.	16,96,341
Add : Packaging and transportation charges	Rs.	87,500
	Rs.	17,83,841

Determination of estimated gross profit margin:

Sales during the year	Rs.	22,45,500
Closing inventory at the selling price	Rs.	2,35,000
	Rs.	24,80,500
Less : Purchases	Rs.	17,83,841
Gross profit	Rs.	6,96,659
Gross profit margin		28.09%

Inventory valuation:

Selling price of closing inventories	Rs.	2,35,000
Less : Gross profit margin 28.09%	Rs.	66,012
	Rs.	1,68,988

Illustration 5

From the following information, calculate the historical cost of inventories using adjusted selling price method:

	Rs.
Sales during the year	2,00,000
Cost of purchases	2,00,000
Opening stock	Nil
Closing stock at selling price	50,000

Solution

Calculation of gross margin of profit:

	Rs.
Sales	2,00,000
Add: Closing inventory (at selling price)	50,000
Selling price of goods available for sale :	2,50,000
Less : Cost of goods available for sale	2,00,000
Gross margin	50,000

$$\text{Rate of gross margin} = \frac{50{,}000}{2{,}50{,}000} \times 100 = 20\%$$

Cost of closing stock = 50,000 less 20% of Rs. 50,000 = Rs. 40,000

5. INVENTORY RECORD SYSTEMS

There are two principal systems of determining the physical quantities and monetary value of inventories sold and in hand. One system is known as 'Periodic Inventory System' and the other as the 'Perpetual Inventory System'. The periodic system is less expensive to use than the perpetual method. But the useful information obtained from perpetual system eclipses the cost consideration. These systems are distinguished on the basis of the actual records kept to ascertain the cost of goods sold and the closing inventory valuations.

5.1 PERIODIC INVENTORY SYSTEM

Periodic inventory system is a method of ascertaining inventory by taking an actual physical count (or measure or weight) of all the inventory items on hand at a particular date on which inventory is required. It is because of actual physical count that the system is also called physical inventory system. The cost of goods sold is determined as shown below:

Opening inventory (known) + Purchases (known) - closing inventory (physically counted) = Cost of goods sold.

Periodic inventory system is simple and less expensive than the perpetual system. In this system, stock account is adjusted at the end of the accounting period to determine cost of goods sold. This system suffers from various limitations:

(i) Physical stock taking is required more than once a year for preparation of quarterly or half yearly financial statements thereby making this system more expensive.

(ii) Physical count of goods requires closure of normal operations of business.

(iii) As cost of goods sold is taken as residual figure, it includes loss of goods during the year.

(iv) Inventory control is not possible under this system.

5.2 PERPETUAL INVENTORY SYSTEM

Perpetual inventory system is a system of recoding inventory balances after each receipt and issue. In order to ensure accuracy of perpetual inventory records, physical stocks should be checked and compared with recorded balances. Under this system, cost of goods issued is directly determined and stock of goods is taken as residual figure with the help of stock ledger in which flow of goods is recorded on continuous basis. The basic feature of this system is the maintenance of stock ledger to have records of goods on continuous basis.

Perpetual inventory system helps to overcome the limitations of periodic system. As stock is taken as residual figure, it includes loss of goods. However, the main limiting factor is the cost of using this system.

5.3 DISTINCTION BETWEEN PERIODIC INVENTORY SYSTEM AND PERPETUAL INVENTORY SYSTEM

Both the systems - Periodic Inventory System and Perpetual Inventory System are not mutually exclusive and complementary in nature. Distinction between both the systems can be explained as follows:

S. No.	Periodic Inventory System	Perpetual Inventory System
1.	This system is based on physical verification.	It is based on book records.
2.	This system provides information about stock and cost of goods sold at a particular date	It provides continuous information about stock and cost of sales.
3.	This system determines inventory and takes cost of goods sold as residual figure.	It directly determines cost of goods sold and computes stock as balancing figure.
4.	Cost of goods sold includes loss of goods as goods not in stock are assumed to be sold.	Closing inventory includes loss of goods as all unsold goods are assumed to be in inventory.
5.	Under this method, inventory control is not possible.	Inventory control can be exercised under this system.
6.	This system is simple and less expensive.	It is costlier method.
7.	Periodic system requires closure of business for counting of stock.	Inventory can be determined without affecting the operations of the business.

6. STOCK TAKING

Normally all operations are suspended for one or two days during the financial year and physical inventory is taken for everything in the godown or the store periodically. For the year-end inventory valuation, physical stock taking is done during the last week of the financial year. If stock taking is finished on 26th March, whereas accounting year ends on 31st March purchases and sales subsequent to 26th March are then separately adjusted. Later, a value is put on each item. The principle of cost or market price, whichever is lower, is applied either for the inventory as a whole or item by item.

Often, stock taking cannot be carried out on the closing day. It is carried out a few days later or some times even a few days earlier. In such a case, the actual value of the stock must be so adjusted as to relate it to the end of the year concerned. For doing so, it will be necessary to take into account the goods that have come in (purchases and sales returns) and those that have gone out (sales and purchase returns) during the interval between the close of the year and the date of actual stock taking. Further, the adjustment of all goods must be on the basis of cost. Suppose, a firm that closes its books on 31st December, carried out the stock taking on the 7th January next year and actual stock was of the cost of Rs. 78,500, during the period January 1 to 7 purchases were Rs. 15,300 and sales Rs. 25,000, the mark up being 25% on cost. The stock on 31st December would be Rs. 83,200 as shown below:

		Rs.
Stock ascertained on January 7		78,500
Less :	Purchases during the period Jan. 1 to 7	15,300
		63,200
Add :	Cost of goods sold during the period :	
	25,000 × (100/125)	20,000
		83,200

Illustration 6

From the following particulars ascertain the value of stock as on 31st March, 2009:

	Rs.
Stock as on 1.4.2008	14,250
Purchases	76,250
Manufacturing Expenses	15,000
Selling Expenses	6,050
Administrative Expenses	3,000
Financial Charges	2,150
Sales	1,24,500

At the time of valuing stock as on 31st March, 2008, a sum of Rs. 1,750 was written off on a particular item, which was originally purchased for Rs. 5,000 and was sold during the year for Rs. 4,500. Barring the transaction relating to this item, the gross profit earned during the year was 20 percent on sales.

Solution

Statement of stock in trade as on 31st March, 2009

		Rs.	*Rs.*
Stock as on 31st March, 2008		14,250	
Less :	Book value of abnormal stock (Rs. 5,000 - Rs. 1,750)	3,250	11,000
Add :	Purchases		76,250
	Manufacturing Expenses		15,000
			1,02,250
Less :	Cost of goods sold :		
	Sales as per books	1,24,500	
	Less : Sales of abnormal item	4,500	
		1,20,000	
	Less : Gross Profit @ 20%	24,000	96,000
Stock in trade as on 31st March, 2009			6,250

Illustration 7

A trader prepared his accounts on 31st March, each year. Due to some unavoidable reasons, no stock taking could be possible till 15th April, 2009 on which date the total cost of goods in his godown came to Rs. 50,000. The following facts were established between 31st March and 15th April, 2009.

(i) Sales Rs. 41,000 (including cash sales Rs. 10,000)

(ii) Purchases Rs. 5,034 (including cash purchases Rs. 1,990)

(iii) Sales Return Rs. 1,000.

Goods are sold by the trader at a profit of 20% on sales.

You are required to ascertain the value of inventory as on 31st March, 2009.

Solution

Statement of valuation of stock on 31st March, 2009

		Rs.	*Rs.*
Value of stock as on 15th April, 2009			50,000
Add :	Cost of goods sold during the period from 31st March, 2009 to 15th April, 2009		
	Sales (Rs. 41,000 - Rs. 1,000)	40,000	
	Less : Gross Profit (20% of Rs. 40,000)	8,000	32,000
			82,000
Less :	Purchases during the period from 31st March, 2009 to 15th April, 2009		5,034
			76,966

Illustration 8

Stock taking for the year ended 30th September, 2009 was completed by 10th October 2009, the valuation of which showed a stock figure of Rs. 1,67,500 at cost as on the completion date. After the end of the accounting year and till the date of completion of stock taking, sales for the next year were made for Rs. 6,875, profit margin being 33.33 percent on cost. Purchases for the next year included in the stock amounted to Rs. 9,000 at cost less trade discount 10 percent. During this period, goods were added to stock at the mark up price of Rs. 300 in respect of sales returns. After stock taking it was found that there were certain very old slow moving items costing Rs. 1,125, which should be taken at Rs. 525 to ensure disposal to an interested customer. Due to heavy flood, certain goods costing Rs. 1,550 were received from the supplier beyond the delivery date of customer. As a result, the customer refused to take delivery and net realisable value of the goods was estimated to be Rs. 1,250 on 30th September. Compute the value of stock for inclusion in the final accounts for the year ended 30th September, 2009.

Solution

Statement showing the valuation of stock as on 30th September, 2009

	Rs.
Value of Stock as on 10th October	1,67,500
Add: Cost of goods sold after 30th September till stock taking (Rs. 6,875 - Rs. 1,719)	5,156
Less: Purchases for the next period (net)	8,100
Less: Cost of Sales Returns	225
Less: Loss on revaluation of slow moving inventories	600
Less: Reduction in value on account of default	300
Value of Stock on September 30	1,63,431

Note: Profit margin of 33.33 percent on cost means 25 percent on sales price.

Illustration 9

The following are the details of a spare part of Sriram mills:

1-1-2009	Opening stock	Nil
1-1-2009	Purchases	100 units @ Rs. 30 per unit
15-1-2009	Issued for consumption	50 units
1-2-2009	Purchases	200 units @ Rs. 40 per unit
15-2-2009	Issued for consumption	100 units
20-2-2009	Issued for consumption	100 units

Find out the value of stock as on 31-3-2009 if the company follows First in first out basis.

Solution

First-in-First out basis

Sriram Mills

Calculation of the value of stock as on 31-3-2009

	Receipts			Issues			Balance		
Date	**Units**	**Rate**	**Amount**	**Units**	**Rate**	**Amount**	**Units**	**Rate**	**Amount**
		Rs.	**Rs.**		**Rs.**	**Rs.**		**Rs.**	**Rs.**
1-1-2009	Balance							Nil	
1-1-2009	100	30	3,000				100	30	3,000
15-1-2009				50	30	1,500	50	30	1,500
1-2-2009	200	40	8,000				50	30	1,500
							200	40	8,000
15-2-2009				50	30	1,500	150	40	6,000
				50	40	2,000			
20-2-2009				100	40	4,000	50	40	2,000

Therefore, the value of stock as on 31-3-2009: 50 units @ Rs. 40 = Rs. 2,000

Illustration 10

The following are the details of a spare part of Sriram mills:

1-1-2009	Opening stock	Nil
1-1-2009	Purchases	100 units @ Rs. 30 per unit
15-1-2009	Issued for consumption	50 units
1-2-2009	Purchases	200 units @ Rs. 40 per unit
15-2-2009	Issued for consumption	100 units
20-2-2009	Issued for consumption	100 units

Find out the value of stock as on 31-3-2009 if the company follows Weighted Average basis.

Solution

Weighted Average basis

Sriram Mills

Calculation of the value of stock as on 31-3-2009

	Receipts			Issues			Balance		
Date	Units	Rate	Amount	Units	Rate	Amount	Units	Rate	Amount
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
1-1-2009	Balance							Nil	
1-1-2009	100	30	3,000				100	30	3,000
15-1-2009				50	30	1,500	50	30	1,500
1-2-2009	200	40	8,000				250	38	9,500
15-2-2009				100	38	3,800	150	38	5,700
20-2-2009				100	38	3,800	50	38	1,900

Therefore, the value of stock as on 31-3-2009 = 50 units @ Rs. 38 = Rs. 1,900

SELF EXAMINATION QUESTIONS

Pick up the correct answer from the given choices:

1. The amount of purchase if

   Cost of goods sold is Rs.80,700

   Opening stock Rs.5,800

   Closing stock Rs.6,000

   (a) Rs. 80,500 (b) Rs. 74,900 (c) Rs. 74,700 (d) Rs. 80,900.

2. Average Stock = Rs. 12,000. Closing stock is Rs. 3,000 more than opening stock. The value of closing stock = ______.

   (a) Rs. 12,000 (b) Rs. 24,000 (c) Rs. 10,500 (d) Rs. 13,500.

3. If the profit is 25% of the cost price then it is

   (a) 25% of the sales price (b) 33% of the sales price

   (c) 20% of the sales price (d) 15% of the sales price.

4. Goods purchased Rs. 1,00,000. Sales Rs 90,000. Margin 20% on cost. Closing Stock = ?

   (a) Rs. 20,000 (b) Rs. 10,000 (c) Rs. 25,000 (d) Rs. 28,000

5. A company is following weighted average cost method for valuing its inventory. The details of its purchase and issue of raw-materials during the week are as follows:

1.12.2005 opening stock 50 units value Rs.2,200.

2.12.2005 purchased 100 units @Rs.47.

4.12.2005 issued 50 units.

5.12.2005 purchased 200 units @Rs.48.

The value of inventory at the end of the week and the unit weighted average costs is

(a) Rs. 14,200 – Rs. 47.33 (b) Rs. 14,300 – Rs. 47.67

(c) Rs. 14,000 – Rs. 46.66 (d) Rs. 14,400 – Rs. 48.00

6. The books of T Ltd. revealed the following information:

Particulars	Rs.
Opening inventory	6,00,000
Purchases during the year 2008-2009	34,00,000
Sales during the year 2008-2009	48,00,000

On March 31, 2009, the value of inventory as per physical stock-taking was Rs. 3,25,000. The company's gross profit on sales has remained constant at 25%. The management of the company suspects that some inventory might have been pilfered by a new employee. What is the estimated cost of missing inventory?

(a) Rs. 75,000 (b) Rs. 25,000 (c) Rs. 1,00,000 (d) Rs. 1,50,000.

7. C Ltd. recorded the following information as on March 31, 2009:

	Rs.
Stock as on April 01, 2008	80,000
Purchases	1,60,000
Sales	2,00,000

It is noticed that goods worth Rs.30,000 were destroyed due to fire. Against this, the insurance company accepted a claim of Rs.20,000.

The company sells goods at cost plus 33 1/3 %. The value of closing inventory, after taking into account the above transactions is,

(a) Rs.10,000 (b) Rs.30,000 (c) Rs.1,00,000 (d) Rs.60,000.

8. D Company, a dealer in cosmetics, records its inventory under first-in-first-out method, so as to minimize accumulation of outdated stock. The opening stock as on September 01, 2009 is 150 units at the rate of Rs.20 per unit. The purchases and sales made during the month are:

Purchases:

Date	No. of units	Cost price per unit
04-09-2009	200	Rs.25
14-09-2009	100	Rs.22

Sales:

Date	No. of units
03-09-2009	100
10-09-2009	150

With effect from September 01, 2009, the company decided to change the method of inventory valuation from the FIFO method to LIFO method. The change in the value of inventory as on September 30, 2009 consequent upon the change in the method of valuation is

(a) Increase in the value of closing stock by Rs.250.

(b) Decrease in the value of closing stock by Rs.250.

(c) Increase in the value of closing stock by Rs.500.

(d) Decrease in the value of closing stock by Rs.500.

9. E Ltd., a dealer in second-hand cars has the following five vehicles of different models and makes in their stock at the end of the financial year 2008-2009:

Car	Fiat	Ambassador	Maruti Esteem	Maruti 800	Zen
Cost (Rs.)	90,000	1,15,000	2,75,000	1,00,000	2,10,000
Net realizablevalue (Rs.)	95,000	1,55,000	2,65,000	1,25,000	2,00,000

The value of stock included in the balance sheet of the company as on March 31, 2009 was

(a) Rs.7,62,500

(b) Rs.7,70,000

(c) Rs.7,90,000

(d) Rs.8,70,000.

10. On April 07, 2009, i.e, a week after the end of the accounting year 2008-09, a company undertook physical stock verification. The value of stock as per physical stock verification was found to be Rs.35,000.

The following details pertaining to the period April 01, 2009 to April 07, 2009 are given:

I. Goods costing Rs.5,000 were sold during the week.

II. Goods received from consignor amounting to Rs.4,000 included in the value of stock.

III. Goods earlier purchased but returned during the period amounted to Rs.1,000.

IV. Goods earlier purchased and accounted but not received Rs.6,000.

After considering the above, the value of stock held as on March 31, 2009 was

(a) Rs.27,000 (b) Rs.19,000 (c) Rs.43,000 (d) Rs.51,000.

11. While finalizing the current year's profit, the company realized that there was an error in the valuation of closing stock of the previous year. In the previous year, closing stock was valued more by Rs.50,000. As a result

(a) Previous year's profit is overstated and current year's profit is also overstated

(b) Previous year's profit is understated and current year's profit is overstated

(c) Previous year's profit is understated and current year's profit is also understated

(d) Previous year's profit is overstated and current year's profit is understated

12. The total cost of goods available for sale with a company during the current year is Rs.12,00,000 and the total sales during the period are Rs.13,00,000. If the gross profit margin of the company is 33 1/3% on cost, the closing inventory during the current year is

(a) Rs.4,00,000 (b) Rs.3,00,000 (c) Rs.2,25,000 (d) Rs.2,60,000.

13. A company follows weighted average cost method for the valuation of its inventory. The details of purchase and issue of raw-materials pertaining to the company during the week April 01, 2009 to April 07, 2009 are as follows:

Date	Particulars	Purchases (Units)	Issues (Units)	Rate per Unit (Rs.)
April 01	Opening stock	50		44
April 02		100		47
April 04			50	-

The value of inventory at the end of the week under weighted average method is

(a) Rs.4,600 (b) Rs.4,550 (c) Rs.4,700 (d) Rs.4,400.

14. Consider the following information pertaining to G & Sons as on March 31, 2009:

Particulars	Rs.
Opening inventory	15,00,000
Purchases during the year 2008-09	45,00,000
Sales during the year 2008-09	50,00,000

As per physical inventory taken on March 31, 2009 the closing inventory was Rs.20,90,000. Gross profit on sales has remained constant at 25%. The management of the firm suspects that some inventory might have been taken away by a new employee. The estimated cost of missing inventory on the close of the financial year and the cost of goods sold during the year, respectively are

(a) Rs.2,65,000; Rs.37,50,000 (b) Rs.2,10,000; Rs.39,10,000

(c) Rs.1,75,000; Rs.50,00,000 (d) Rs.1,60,000; Rs.37,50,000.

15. S Ltd. follows perpetual inventory system. On March 31 of every year, the company undertakes physical stock verification. On March 31, 2009, the value of stock as per the records differed from the value as per the physical stock. On scrutiny, the following differences were noticed:

    Goods purchased for Rs.10,000 were received and included in the physical stock but no entry was made in the books.

    Goods costing Rs.30,000 were sold and entered in the books but the stock is yet to be delivered.

    Goods worth Rs.5,000 are returned to the suppliers but is omitted to be recorded.

    If the inventory is valued in the books at Rs.1,50,000, the value of the physical inventory is

    (a) Rs.1,11,000 (b) Rs.1,89,000 (c) Rs.1,85,000 (d) Rs.1,59,000.

16. Consider the following data pertaining to H Ltd. for the month of March 2009:

Particulars	As on March 01, 2009 (Rs.)	As on March 31, 2009 (Rs.)
Stock	1,80,000	90,000

    The company made purchases amounting Rs. 3,30,000 on credit. During the month of March 2009, the company paid a sum of Rs.3,50,000 to the suppliers. The goods are sold at 25% above the cost. The sales for the month of March 2009 were

    (a) Rs.4,12,500 (b) Rs.5,25,000 (c) Rs.90,000 (d) Rs.3,15,000.

17. Consider the following data pertaining to a company for the month of March 2009:

Particulars	Rs.
Opening stock	22,000
Closing stock	25,000
Purchases less returns	1,10,000
Gross profit margin (on sales)	20%

    The sales of the company during the month are

    (a) Rs.1,41,250 (b) Rs.1,35,600 (c) Rs.1,33,750 (d) Rs.1,28,400.

18. O Ltd. maintains the inventory records under perpetual system of inventory. Consider the following data pertaining to inventory of O Ltd. held for the month of March 2009:

Date	Particulars	Quantity	Cost Per unit(Rs.)
Mar. 1	Opening Inventory	15	400
Mar. 4	Purchases	20	450
Mar. 6	Purchases	10	460

    If the company sold 32 units on March 24, 2009, closing inventory under FIFO method is

    (a) Rs.5,200 (b) Rs.5,681 (c) Rs.5,800 (d) Rs.5,950.

19. Consider the following data pertaining to R Ltd. for the month of June 2009:

Particulars	Rs.
Opening stock	30,000
Closing stock	40,000
Purchases	5,60,000
Returns outward	15,000
Returns inward	20,000
Carrige inward	5,000

If the gross profit is 20% of net sales, the gross sales for the month of June 2009 is

(a) Rs.6,95,000 (b) Rs.6,75,000 (c) Rs.5,40,000 (d) Rs.6,68,750.

20. Consider the following for Q Co. for the year 2008-09:

Cost of goods available for sale	Rs.1,00,000
Total sales	Rs. 80,000
Opening stock of goods	Rs. 20,000
Gross profit margin	25%

Closing stock of goods for the year 2008-09 was

(a) Rs.80,000 (b) Rs.60,000 (c) Rs.40,000 (d) Rs.36,000.

21. Consider the following data pertaining to credit purchases made by K Ltd., a dealer in electronic goods, for the month of March 2009:

Date	Particulars	No. of units	Rate per unit Rs.	Trade Discount
March 01	Black & White TVs	50	3,000	10%
	Colour TVs	10	6,000	10%
March 09	Tape Recorders	10	1,000	10%
	Two-in-one	10	1,500	10%
March 19	Audio Cassettes	100	30	5%

On March 22, 2009, the company purchased from LM Stationers on credit for office use 10 dozens of carbon papers at the rate of Rs.35 per dozen and 10 dozens of ball pens at the rate of Rs.25 per dozen.

At the time of making payment on March 31, 2009, the suppliers have allowed a cash discount of 10% on the above purchases.

The total of purchases for the month of March 2009, was

(a) Rs.2,14,350 (b) Rs.2,38,000 (c) Rs.1,92,915 (d) Rs.2,38,600

From the given information, choose the most appropriate answer for questions 22 to 27.

Hindustan Ltd. has furnished the following details :

Date	Particulars	Units	Rate (Rs.)
01.03.2009	Opening stock	100	1.75
05.03.2009	Purchased	150	1.50
12.03.2009	Purchased	300	1.60
08.03.2009	Issued	200	-
18.03.2009	Issued	250	-

22. What is the value of closing stock using FIFO method :

    (a) Rs. 170 (b) Rs. 160 (c) Rs. 150 (d) Rs. 180

23. Using the information given in the problem, the value of issues using FIFO method :

    (a) Rs. 700 (b) Rs. 580 (c) Rs. 605 (d) Rs. 720

24. Using the information given in problem, the value of closing stock as per LIFO method :

    (a) Rs. 172.50 (b) Rs. 225 (c) Rs. 160 (d) Rs. 167.50

25. Using the information given in problem, the value of issues using LIFO method :

    (a) Rs. 712.50 (b) Rs. 515.50 (c) Rs. 620 (d) Rs. 575.50

26. Using the information given in problem, the value of closing stock as per weighted average method :

    (a) Rs. 160 (b) Rs. 175.50 (c) Rs. 150 (d) Rs. 225.50

27. Using the information given in problem, the value of issues using weighted average method :

    (a) Rs. 600.50 (b) Rs. 580 (c) Rs. 620 (d) Rs. 720

From the given information, answer questions 28 to 36.

Bharat Indian Oil is a bulk distributor of petrol. A periodic inventory of petrol on hand is taken when the books are closed at the end of each month. The following summary of information is available for the month :

Sales Rs.9,45,000

General administration cost Rs.25,000

Opening Stock: 1,00,000 litres @ Rs.3 per litre Rs.3,00,000

Purchases (including freight inward):

June 1 2,00,000 litres @ Rs.2.85 per litre

June 30 1,00,000 litres @ Rs.3.03 per litre

June 30 Closing stock 1,30,000 litres

28. Compute the value of inventory on June 30 using FIFO method of inventory costing.

(a) Rs. 3,88,500 (b) Rs. 4,18,500 (c) Rs. 2,58,000 (d) Rs. 3,60,500

29. Using the information given in problem, compute the amount of cost of goods sold for the month of June using FIFO basis.

(a) Rs. 7,84,500 (b) Rs. 6,85,000 (c) Rs. 3,88,500 (d) Rs. 7,58,000

30. Compute net profit or loss for the month of June using FIFO method of inventory costing.

(a) Rs. 1,60,000 (b) Rs. 1,15,500 (c) Rs. 1,25,000 (d) Rs. 1,35,500

31. Compute the value of inventory on June 30 using weighted average method of inventory costing.

(a) Rs. 3,75,000 (b) Rs. 3,81,225 (c) Rs. 2,80,000 (d) Rs. 4,10,000

32. Using the information given in problem, compute the amount of cost of goods sold for the month of June using weighted average method.

(a) Rs. 8,15,000 (b) Rs. 7,52,000 (c) Rs. 7,91,775 (d) Rs. 6,79,000

33. Compute gross profit or loss for the month of June using weighted average method of inventory costing.

(a) Rs. 1,20,000 (b) Rs. 2,15,000 (c) Rs. 1,53,225 (d) Rs. 129,000

34. Compute the value of inventory on June 30 using LIFO method of inventory costing.

(a) Rs. 3,85,500 (b) Rs. 3,69,000 (c) Rs. 2,97,000 (d) Rs. 4,18,000

35. Using the information given in the problem, compute the amount of cost of goods sold for the month of June using LIFO principle.

(a) Rs. 7,87,500 (b) Rs. 6,75,000 (c) Rs. 8,15,000 (d) Rs. 7,95,000

36. Compute gross profit or loss for the month of June using LIFO method of inventory costing.

(a) Rs. 1,95,500 (b) Rs. 165,000 (c) Rs. 1,57,500 (d) Rs. 1,95,000

From the following information, answer questions 37 to 42

The following are the details supplied by Agni Ltd. in respect of its raw materials for the Month of December, 2009 :

Date	Receipts (Units)	Price per unit (Rs.)	Issues (Units)
01.12.2009	2,000 (Opening)	5.00	
07.12.2009	1,000	6.00	
10.12.2009	-	-	2,500
15.12.2009	2,000	6.50	
31.12.2009	-	-	2,200

On 31.12.2009, a shortage of 100 units was found.

37. Find the value of closing stock using LIFO principle.

(a) Rs. 1,900 (b) Rs. 2,400 (c) Rs. 2,000 (d) Rs. 1,500

38. Using the data given in problem, the value of issues in the month of December 2009 using LIFO principle.

(a) Rs. 35,000 (b) Rs. 27,500 (c) Rs. 20,000 (d) Rs. 65,000

39. Using the data given in problem, the value of closing stock using FIFO principle.

(a) Rs. 1,600 (b) Rs. 1,500 (c) Rs. 1,950 (d) Rs. 2,000

40. Using the data given in problem, the value of issues in the month of December 2009 using FIFO method.

(a) Rs. 27,050 (b) Rs. 35,500 (c) Rs. 19,500 (d) Rs. 21,300

41. Using the data given in problem , the value of closing stock using simple average principle.

(a) Rs. 950 (b) Rs. 1,750 (c) Rs. 1,000 (d) Rs. 1,300

(e) Rs. 750

42. Using the data given in problem, the value of issues in the month of December 2009 using simple average method.

(a) Rs. 15,385 (b) Rs. 21,675 (c) Rs. 19,750 (d) Rs. 27,417

From the following information, answer questions 43 to 47

X who was closing his books on 31.03.2009 failed to take the actual stock which he did on 9th April, when it was ascertained by him to be worth Rs 25,000.

It was found that sales are entered in the Sales Day Book on the same day of despatch and the returns inward in the returns book as and when the goods are received back. Purchases are entered in the Purchase Day Book once the invoices are received. Observations -

i. Sales between 31st March and 9th April as per Sales Book are Rs 1,720. Rate of gross profit is 33 1/3 % on cost.

ii. Purchases during the same period as per Purchases Book are Rs 120.

iii. Out of above purchases, goods amounting to Rs 50 were not received until after the stock was taken.

iv. Goods invoiced during the month of March, but goods received only on 4th April, amounted to Rs 100.

You want to find the value of physical stock on 31st March. You start with the value of stock on 9th April.

43. How would you adjust the observation # 1?

(a) 1,720 (Less) (b) 1,290 (Less) (c) 430 (d) 1,290 (Add)

44. How would you adjust the observation # 2?

(a) 120 (Less) (b) 170 (Less) (c) 50 (d) 120 (Add)

45. How would you adjust the observation # 3?

(a) 70 (Less) (b) 50 (Less) (c) 120 (d) 50 (Add)

46. How would you adjust the observation # 4?

(a) 100 (Add) (b) 150 (Less) (c) 100 (Less) (d) 150 (Add)

47. Value of physical stock on 31st March = _______.

(a) 26,320 (b) 26,120 (c) 6,190 (d) 23,530

From the following information, answer questions 48 to 53

Physical verification of stock was done on 23rd Iune. The value of stock was Rs. 4,80,000. Following transactions took place between 23rd June and 30th June:

1. Out of goods sent on consignment, goods costing Rs. 24,000 were unsold.
2. Purchases of Rs. 40,000 were made, out of which goods worth Rs. 16,000 were delivered on 5th July.
3. Sales were Rs. 1,36,000, which include goods worth Rs. 32,000 sent on approval. Half of these goods were returned before 30th June, but no intimation is available regarding the remaining goods. Goods are sold at cost plus 25%. However, goods costing Rs. 24,000 had been sold for Rs. 12,000.

   You want to determine the value of stock on 30th June. You start with physical stock on 23rd June.

48. What will you do regarding adjustment # 1?

(a) 24,000 (Add) (b) 24,000 (less)

(c) 48,000 (Add) (d) 48,000 (Less)

49. What will you do regarding adjustment # 2?

(a) 24,000 (Add) (b) 16,000 (Add)

(c) 40,000 (Add) (d) 40,000 (Less)

50. Normal Sales = ______.

(a) 1,36,000 (b) 1,24,000 (c) 1,48,000 (d) 92,000

51. Cost of Normal Sales = _______.

(a) 73,600 (b) 80,000 (c) 1,08,800 (d) 99,200

52. What will you do regarding adjustment # 3?

(a) 73,600 (Add) (b) 24,000 (lAdd) (c) 97,600 (Less) (d) Both (a) and (b)

53. Value of stock on 30th June = ________.

(a) 4,80,000 (b) 5,44,000 (c) 4,36,000 (d) 4,46,400

ANSWERS

1.	(d)	2.	(d)	3.	(c)	4.	(c)	5.	(a)	6.	(a)	7.	(d)
8.	(b)	9.	(b)	10.	(c)	11.	(d)	12.	(c)	13.	(a)	14.	(d)
15.	(c)	16.	(b)	17.	(c)	18.	(d)	19.	(a)	20.	(c)	21.	(a)
22.	(b)	23.	(d)	24.	(d)	25.	(a)	26.	(a)	27.	(d)	28.	(a)
29.	(a)	30.	(d)	31.	(b)	32.	(c)	33.	(c)	34.	(a)	35.	(a)
36.	(c)	37.	(d)	38.	(b)	39.	(c)	40.	(a)	41.	(b)	42.	(d)
43.	(d)	44.	(a)	45.	(d)	46.	(c)	47.	(b)	48.	(a)	49.	(c)
50.	(d)	51.	(a)	52.	(c)	53.	(d)						