UNIT-II

COST ACCOUNTING

costing:-

- Technique & process of ascertaining cost
- Defined as a systematic process for determining the unit cost of output produced or service rendered
- process of costing includes Routines of ascertaining costs by historical/conventional, standard costing/marginal costing

cost Accounting:-

- classifying, Recording & appropriate allocation of expenditure for the determination of the costs of products or services and for the presentation of suitably arranged data for purposes of control and guidance of management
- Includes: ascertainment of cost, cost presentation and cost control.

Definition:-

"A system of recording in accounts the materials used and labour employed in the manufacture of a certain commodity or on a Particular job" —— R.N Carter

Cost	Price
Expense incurred by the business for making a product / service	amount a customer is willing to pay for a product / service

Total cost includes,

- Material
- Labar
- Expenses

Features of cost Accounting :-

→ Process of accounting for cost

→ Records income & expenditure relating to production of goods & services

→ Provides statistical data on the basis of which future estimates are prepared and quotations are submitted

→ concerned with cost ascertainment and cost control Establishes budget and standards so that actual cost may be compared to find out deviation or variance to

→ It will be helpful to the management for planning, control and decision making

Difference between costing & cost accounting

costing	cost Accounting
① It refers to the practice of identifying cost of any product, service or activity at various times and stages of production	① method of accounting that records, classifies, allocate, summarize, analyse, interpret and control the cost incurred on any product, process, service or activity
② process and technique of determining cost	② specialised branch of accounting
③ Not used for decision making	③ used by management for decision making
④ Accounting principles are not applied	④ Application of accounting principles is important
⑤ scope is wide	⑤ scope is comparatively wide

Nature and scope of cost accounting:

Nature of cost Accounting:-

* **cost accounting is a branch of knowledge:-**
cost accounting is a branch of financial accounting. It is one of the important branch of knowledge. It is an organized body of knowledge consisting of its own principles, concepts and conventions. These principles and rules vary from industry to industry.

* **cost accounting is a science:-**
It is a body of systematic knowledge relating to not only cost accounting but relating to a wide variety of subjects such as law, office practice and procedure, data processing, production and material control etc. It is necessary for a cost accountant to have intimate knowledge of all these field of study in order to carry day to day activities. But it is to be admitted that it is not a perfect science as in the case of natural science

* cost Accounting is an art :-

It requires ability and skill on part of cost accountant in applying the principles methods and techniques of cost accountancy to various management problems. These problems include the ascertainment of cost control of costs, ascertainment of profitability etc

* cost Accounting is a profession :-

First, the setting up of various professional bodies such as National Association to Accountants (NAA) the Institute of cost and management Accountant U.K. The Institute of cost and works accounts in India and such other professional bodies both in developed and developing countries have increased the growing awareness of costing profession among the people

Secondly, a large number of students have enrolled these institutes to obtain costing degrees and membership for earning their livelihood.

Scope of cost Accounting :-

* cost Determination :-

This is the first step in the cost accounting system. It refers to determining the cost for a specific product or activity. This is a critical activity since the other three activities explained below depend on it.

* cost Recording:-

It is concerned with recording of costs in the cost journal and their subsequent posting to the ledger. cost Recording may be done according to integral or non-integral system a separate set of books is maintained for costing and financial transactions

* cost Analyzing:-

It is concerned with critical evaluation of cost information to assist the management in planning and controlling the business activates. Meaningful cost analysis depends largely upon the clear understanding of cost finding methods used in cost accounting.

* cost Reporting:-

It is concerned with reporting cost data both for internal & external reporting purpose. In order to use cost information intelligently it is necessary for the managers to have good understanding of different cost accounting concepts.

Difference between financial Accounting and cost Accounting

Financial Accounting	Cost Accounting
* It provides information about the financial performance of an entity	* Ascertainment of cost for the purpose of cost control and decision making
* classifies, Records, presents and interprets transactions in monetary terms	* classifies, cost records, present and interprets it in a significant manner
* It records historical data	* It makes use of both historical and predetermined costs
* Users are shareholders, creditors, financial analysts and govt and its agencies etc	Generally used by internal management. But sometime regulatory authorities also
* shows P&L of the organization either segment wise or as a whole	* provides cost details for each cost object ie, product, procen, job contracts etc
* Financial statements are prepared usually for a year	* Reports and statements are prepared as and when required

* Deals with external transactions

* Stock valued at cost or market price whichever is lower

* Does not reveal the relative efficiency of coorkers, plant & machinery etc

* Legal Requirements are kept as required by companies Act, Income Tax Act etc

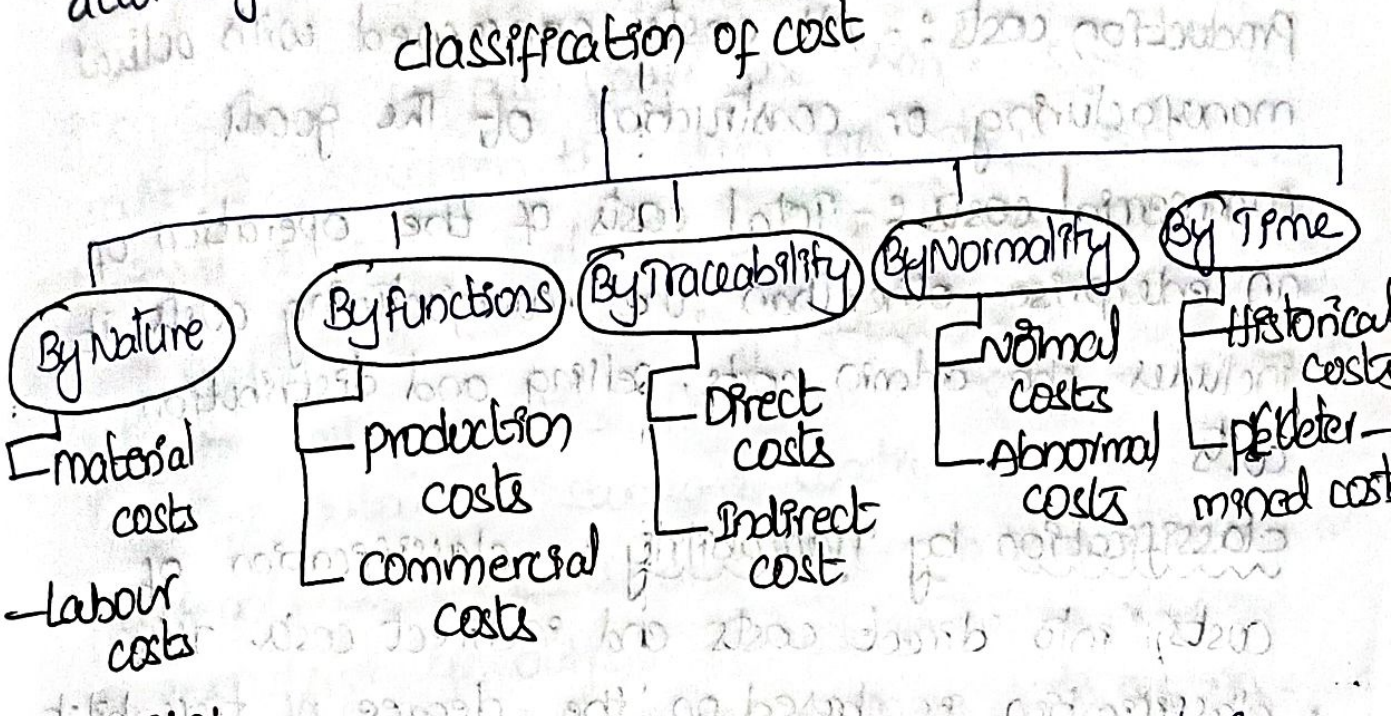
* Deals with internal transactions

* It valued at cost

* It provides information for all operations and compare with standard cost and derivations can be analyzed for corrective action.

* It generally kept to meet the requirements of management. Now it is obligatory to keep such records.

Classification of cost: means grouping of costs according to their similar characteristics.



classification by Nature :- Ascertain the total cost & determine the cost of work in progress

material costs :- costs of any materials we use in the production of goods. we divide these costs further for example, let's divide material costs into raw material costs, spare parts, costs of packaging material etc

Labor costs :- consists of the salary and wages paid to permanent and temporary employees in the pursuit of the manufacturing of the goods

Expenses :- All other expenses associated with making and selling the goods or services

Classification by functions:- The pattern of basic managerial activities of the organization.

Production costs:- All costs concerned with actual manufacturing or construction of the goods

Commercial costs:- Total costs of the operation of an enterprise other than the manufacturing costs. It includes the admin costs, selling and distribution costs

Classification by Traceability:- classification of costs into direct costs and indirect costs. This classification is based on the degree of traceability to the final product of the firm

Direct costs:- so these are the costs which are easily identified with a specific cost unit or cost centers. some of the most basic examples are the materials used in the manufacturing of a product or the labor involved with the production process

Indirect costs:- These costs are incurred for many purposes ie., between many cost centers or units. so we cannot easily identify them to one particular cost center.

Ex:- Rent of building or salary of the manager we will not be able to accurately determine how to ascertain such costs to a particular cost unit

classification by Normality :- Determines the costs as normal costs and abnormal costs. The norms of normal costs are the costs that usually occur at a given level of output, under the same set of conditions in which this level of output happens

Normal costs :- part of the cost of production and a part of the costing profit and loss. These are the costs that the firm incurs at the normal level of output in standard conditions

Abnormal costs :- costs are not normally incurred at a given level of output in conditions in which normal levels of output occur. These costs are charged to the P&L A/c, they are not apart of the cost of production.

classification by Time :-

Historical costs :- costs are computed after they are incurred. such costs are available only after the production of a particular things is over

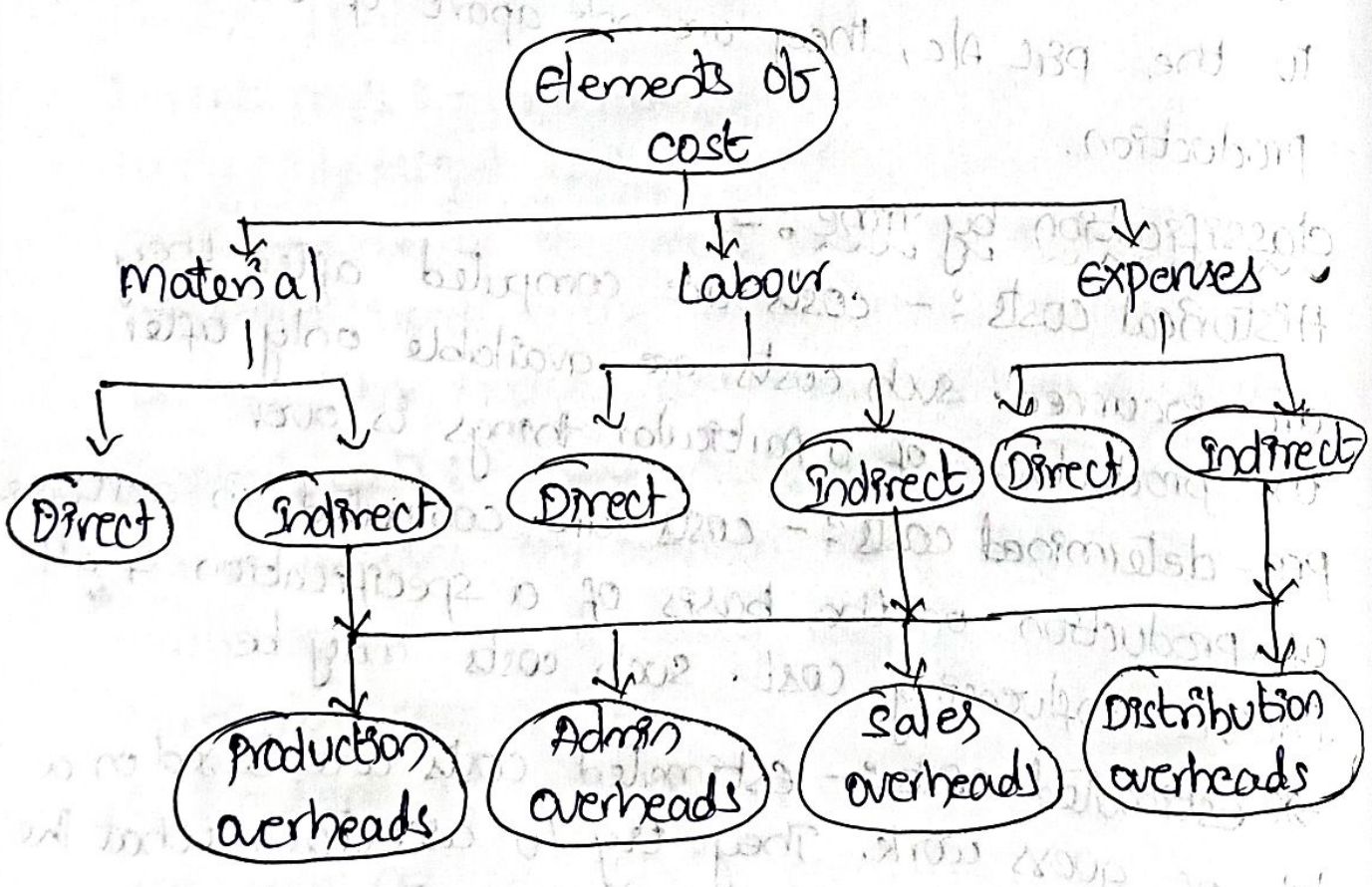
pre-determined costs :- costs are computed in advance of production on the basis of a specification of all factors influencing cost. such costs may be

* Estimated costs :- Estimated costs are based on a lot of guess work. They try to ascertain what the costs will be based on certain factors. They are less accurate as only past experience is taken into account

* Standard costs:- pre-determined cost based on a technical estimate for material, labour and other expenses for a selected period of time and for a prescribed set of working conditions. It is more scientific in nature and the object is to find out what the costs should be.

Elements of costs

The Elements of cost are those elements which constitute the cost of manufacture of a product. we can broadly divide these elements of a cost into 3 categories.



Direct material :-

Represents the raw material or goods necessary to produce or manufacture a product. The cost of direct material varies according to the level of output

Ex:- milk is the direct material of ghee
wood is the " " " furniture

Indirect material :-

Refers to the material which we require to produce a product but is not directly identifiable. It doesnot form a part of a finished product

Ex:- use of nails to make a Table

The cost of indirect material doesnot vary in the direct proportion of product.

Direct Labour :-

Refers to the amount which paid to the workers who are directly engaged in the production of goods. It varies directly with the level of output

Indirect Labour :-

Refers to the amount paid to workers who are indirectly engaged in the production of goods. It does not vary directly with the level of output

Direct Expenses:-

Refers to the expenses that are specifically incurred by the enterprises to produce a product. The production cannot take place without incurring these expenses. It varies directly with the level of production.

Indirect Expenses:-

Represents the expenses that are incurred by the organization to produce a product. These expenses cannot be easily identified accurately.

Ex:- power expenses for the production of pens.

overhead:-

Refers to all indirect materials, indirect labour or and indirect expenses

factory overhead:-

factory overhead / production overhead / works overhead refers to the expenses which a firm incurs in the production area or within factory premises

ex:- Indirect material, rent, rates & taxes of factory, canteen expenses etc

Administration overhead :-

Administrative / office overhead refers to the expenses which are incurred in connection with general administration of the organization

Ex:- salary of administrative staff, postage, telegram and Telephone, stationery etc

selling overhead :-

All expenses that a firm incurs in connection with sales are selling overhead

ex:- salary of sales dept staff, traveler's commission, advertisements etc

Distribution overhead :-

It represents all expenses incurred in connection with the delivery or distribution of finished goods & services from the manufacturer to the consumer.

Ex:- Delivery van expenses, loading & unloading, customs duty, the salary of deliverymen

Advantages and disadvantages of cost Accounting

Advantages

(1) To the management :-

* Action against (or) profitable activities :-
management able to concentrate on profitable jobs & control the unprofitable activities such as wastage, spoilage, leakage, scrap etc of materials.

* Decision-making :-
It provides necessary data along with information to the management to take decisions about the business matters

* Fixing of prices :-
It assistant to fixing the selling price of product with a minimum possible cost

* Improve Efficiency :-
The standard cost and budgetary control, remedial action can be chosen in order to improve the efficiency

* cost control :-
It facilitates control by comparisons. product wise, dept wise, firm wise, cost of products

* Inventory control :-
Effective physical inventory system maintained for checking on all materials & stores
* Tools of management control :-
provides systematic & comparative reports to the management to exercise the cost control by the management
* Budgeting :-
cost accounting reveals actual cost, estimate cost & standard cost through the preparation of budget

(2) To the Employees :-
* Efficiency of workers :-
Cost Accounting introduces incentive wage schemes, bonus plans etc the workers may develop their efficiency of their job
* Time study and motion study :-
Employees initiated & recommended for higher promotions. This means increase in earnings on their jobs through the time & motion study
* Job Security :-
Employees get better remuneration, Job security etc due to increase prosperity of the industries

③ To the creditors :-

Cost Accounting provides information about the firm to the bankers, creditors & investors can have a better understanding

④ To the Government :-

Cost Accounting provides National plans, economic development, taxation, exports etc to the govt

⑤ To the public :-

costing system facilitates the customers to pay fair & cheaper prices with better quality of goods, employment opportunities development of economy etc

Disadvantages of cost Accounting :-

→ lack of uniform procedure. because different cost accounts may estimate in different wages from the same information. so that results also differs

→ used only by big concerns. It requires many formalities to be observed

→ only past performances are available in the costing Records but management is taking decisions for future

→ cost of previous year is not same in the succeeding year. Hence, cost data are not highly useful

→ In cost accounting, costs are absorbed on pre-determined rate. It leads to over absorption or under absorption of overhead.

How to calculate the cost of materials consumed:

Calculation of materials consumed

opening stock of Raw materials	XXX
Add:- purchase of Raw materials	XXX
Add:- purchase expenses	XXX
	XXX
Less:- closing stock of Raw materials	XXX
Materials consumed →	XXX

Cost sheet :-

Cost sheet is a statement, prepared at given intervals of time, which provides information regarding elements of cost incurred in production. It discloses the total cost as well as the cost per unit of the product manufactured during the given period

Definition :-

"Cost sheets are prepared for the use of the management and consequently they must include all the essential details which will assist the management in checking the efficiency of production"

— Harold. J. Wheldon

Proforma of cost sheet

Particulars	Amount Rs	Amount Rs
opening stock of Raw materials		XXX
Add:- purchase of Raw materials	XXX	
Purchase expense	XXX	
		XXX
Less:- closing stock of Raw materials		XXX
materials consumed		XXX
Add:- Direct wages / production wages	XXX	
Direct expenses carriage, etc	XXX	
		XXX
Prime cost		XXX
Add:- Factory overheads (or) works overhead		
Indirect expenses (or) factory wages	XX	
Factory Rent, power, fuel	XX	
factory manager's salary	XX	
factory taxes	XX	
Depreciation on factory plant & machinery	XX	
Gas, electricity, freight, water etc	XX	
Factory stationery	XX	
service department expenses	XX	
factory lighting & heating	XX	
Oil, Insurance on factory buildings	XX	
Supervisors salary	XX	
workmen wages, foremen salary	XX	

cost of loose tools removed (spare parts)	xx	
Indirect materials, store keeper wages	xx	
Drawing office salaries, Halage, other factory expenses	xx	
		xxx
Gross factory cost →		xxx
Add:- opening stock of work in progress	xx	
Less:- closing stock of work in progress	xx	
		xxx
Factory cost / Net factory cost →		xxx
Add:- Office (or) Administration overheads		
Office staff salaries	xx	
Legal charges, Audit fees	xx	
Directors Remuneration	xx	
Depreciation on office plant & machinery	xx	
office rent, rates, taxes & Insurance	xx	
Office electricity, lighting, water, clearing charges	xx	
office maintainance Expenses	xx	
Telephone, postage, printing & stationery	xx	
Bank charges	xx	
counting House salaries	xx	
other office expenses	xx	
		xxx
Office (or) cost of production →		xxx

Add:- opening stock of Finished goods	XXX	
Less:- closing stock of finished goods	XXX	
cost of Goods sold →		XXX
Add:- selling & Distribution overheads		
sales department salaries	XX	
Advertisements	XX	
carriage on sales/carriage outwards	XX	
showroom expenses, packing charges, Godown rent	XX	
Traveling expenses / samples	XX	
salesmen commission	XX	
Bad debts written off	XX	
Printing & stationery for catalog's	XX	
other selling & distribution expenses	XX	
cost of sales / Total cost →		XXX
profit / Loss		XXX
sales →		XXX

① The following data have been extracted from the books of M/s HCL Limited for the calendar year 2002.

opening stock of raw materials	25,000
Purchases of raw materials	85,000
closing stock of raw materials	40,000
carriage inward	5,000
wages :- Direct	75,000
Indirect	10,000
other direct charges	15,000
Rent & rates :-	
factory	5,000
office	500
Indirect consumption material	500
Depreciation :- plant	1,500
office furniture	100
Salary :-	
office	2,500
salesmen	2,000
other factory Expenses	5,700
other office Expenses	900
managing Directors Remuneration	12,000
other selling Expenses	1,000
Travelling Expenses of salesmen	1,100

Carriage & freight outwards	1,000
Sales	2,50,000
Advance Incometax paid	15,000
Advertisement	2,000

The managing Director's Remuneration is to be allocated as Rs. 4,000 to the factory, Rs. 2,000 to the office and Rs. 6,000 to the selling departments. From the above information prepare (a) prime cost (b) works cost (c) cost of production (d) cost of sales and (e) Net profit

Cost sheet of M/s HCL Ltd for the year ended 2002.

Particulars	Amount Rs	Amount Rs.
Opening stock of Raw materials	25,000	
Add:- Purchases	85,000	
Add:- carriage Inward	5,000	
	1,15,000	
Less:- closing stock	40,000	
Cost of Raw material consumed		75,000
wages		75,000
other direct charges		15,000
PRIME COST		1,65,000
Add:- Factory Expenses		
Indirect wages	10,000	
Rent & rates	5,000	
Indirect material	500	
Depreciation of plant	1,500	
other factory expenses	5,700	
Managing Directors Remuneration	4000	
		26,700
FACTORY COST		1,91,700
Add:- Office & administrative Expenses		
Rent & rates	500	
Depreciation on office furniture	100	
salary	2,500	

other office expenses	900	
managing Director's Remuneration	2,000	
		6,000
		1,97,700
Add:- selling & distribution expenses		
salary - salesmen	2,000	
managing Director's remuneration	6,000	
other selling expenses	1,000	
Advertisement	2,000	
Travelling expenses	1,100	
carriage & freight overhead	1,000	
		13,100
		2,10,800
COST OF SALES		
PROFIT		39,200
		2,50,000

Income Tax is not included in cost

(2) Prepare cost sheet for the year ended 31/12/2001

Stock of finished goods (1/1/2001)	6,000	
stock of raw materials (1/1/2001)	40,000	
work-in-progress (1/1/2001)	15,000	
		61,000
Purchase of raw materials	4,75,000	
Carriage inwards	12,500	
		4,87,500
Factory rent, Taxes & Insurance	7,250	
other production expenses	43,000	
		50,250
stock of goods (31/12/2001)	15,000	
		35,250
Wages		1,75,000
Work manager's salary	30,000	
Factory Employees salary	60,000	
power expenses	9,500	
General expenses	32,500	
		1,32,000
Sales for the year		8,60,000
Stock of raw materials (31/12/2001)	50,000	
work in progress (31/12/2001)	10,000	

cost sheet for the year ending 31-12-2001

Particulars	Rs	Rs.
stock of Raw materials on 1-1-2001	40,000	
Add:- purchases during the year	4,75,000	
	5,15,000	
Less:- stock of materials on 31/12/2001	50,000	
cost of materials consumed		4,65,000
wages		1,75,000
carriage inwards		12,500
PRIME COST		6,52,500
Add:- factory overheads		
works managers salary	30,000	
factory Employees salary	60,000	
factory rent, taxes & insurance	7,250	
power expenses	9,500	
other production expenses	43,000	
	1,49,750	
Add:- work in progress (1/1/2001)	15,000	
	1,64,750	
Less:- work in progress (31/12/2001)	10,000	
		1,54,750
FACTORY COST		8,07,250

Add:- office overheads	
General expenses	32,500
TOTAL COST	8,39,750
Add:- stock of finished goods (1/1/200)	6,000
	8,45,750
Less:- stock of finished goods (31/12/200)	15,000
COST OF SALES	8,30,750
PROFIT	29,250
Total sales →	8,60,000

Methods of Inventory valuation

The first element of a cost of product is "Raw materials." Proper control of materials is necessary in production.

Inventory valuation is a process in accounting that businesses use to determine the value of unsold inventory stock when they are producing their financial accounts. For an organization, inventory stock is an asset that must have a monetary value in order to be recorded on the balance sheet. Your inventory turnover ratio can be calculated using this value, which can help you plan your purchasing decisions.

Types of stock levels of Inventory:-

stock level refers to the amount of goods or raw materials that should be maintained by the businesses to continue their activities and avoid any situations like understocking or overstocking

① Maximum Level :- Quantity of material beyond which a firm should not exceed its stocks. If the quantity exceeds maximum level it will be called as overstocking

Maximum Level = Reordering level + Reordering quantity − (minimum consumption × minimum Reorder period)

② Minimum Level :- Quantity that must be maintained in hand at all times. If stocks are less than minimum level then the work will stop due to shortage of materials

Minimum Level = Re-ordering level − (Normal consumption × Normal Reorder period)

③ Re-order level :- when a quantity of materials reaches a certain level then fresh order is sent to procure materials again. The order sent before the materials reach minimum stock level

Reorder level = maximum consumption × maximum Reorder period
(or)
= minimum level + (Normal consumption × Normal Reorder period)

④ Average stock level :- Level of an average of minimum level & maximum level.

Avg stock level = $\frac{\text{maximum level} + \text{minimum level}}{2}$

⑤ Danger stock level :- Level below the minimum stock level. when a stock reaches this level, immediate action is needed to take for the replacement of stock

Danger Stock level = Average consumption × maximum Reorder period for emergency purchases

From the following information calculate the Reorder level, minimum and maximum stock level

maximum consumption = 1,500 units per day
minimum consumption = 1,200 units per day
Normal consumption = 1,200 units per day
Re-order period = 10-15 days
Re-order quantity = 15,000 units
Normal Reorder period = 12 days

Reorder level = maximum consumption x maximum Re-order period

= 1500 x 15 = 22,500 units.

minimum stock level = Reorder level - (Normal consumption x normal Reorder Period)

= 22,500 - (1200 x 12)
= 22,500 - 14,400
= 8,100 units

maximum stock level = Reorder level + Reorder quantity - (minimum consumption x minimum Reorder Period)

= 22,500 + 15,000 - (1200 x 10)
= 22,500 + 15,000 - (12000)
= 22,500 + 3000 = 25,500 units.

Calculate various stock levels from the information given below

material consumption - 1,000 to 2,000 units
Reorder period - 4 to 6 weeks
Reorder quantity - 10,000 units
maximum Reorder period for emergency purchase - 2 weeks

Reorder level = maximum consumption x maximum Reorder period

= 2000 x 6
= 12000 units

minimum stock level = Reorder level - (normal consumption x normal Reorder Period)

$= 12000 - \left[\left(\frac{1000+2000}{2}\right) \times \left(\frac{4+6}{2}\right)\right]$

= 12000 - (1500 x 5)

= 12000 - 7500

= 4,500 units

Maximum stock level = Reorder level + Reorder quantity
− (minimum consumption × minimum Reorder period)

= 12000 + 10000 − (1000 × 4)

= 12000 + 10000 − 4000

= 18000 units.

Average stock level = minimum stock level + $\frac{1}{2}$ of Reorder quantity

= 4500 + $\frac{1}{2}$ (10000)

= 4500 + 5000

= 9500 units.

Danger level = Average consumption × maximum Reorder period for emergency purchase)

= 1500 × 2 = 3000 units.

Issuing of materials

Storekeeper maintained the materials through ledger accounts. He maintain 2 types of inventory system

① Periodically Inventory system :-

The Quantity value of inventory is found out only at the end of accounting period after having a physical verification of the units in hand. It is also called "physical Inventory system"

② Perpectual Inventory system :-

Also known as Automatic Inventory system It is a system of records maintained by controlling departments which reflects the physical movement of stock & their current balance

Methods of valuing Issuing of materials :-

① FIFO
② LIFO
③ Simple Average price method
④ Weighted Average price method

① First In first out method :-

The Receipts and the issues follow a sequential pattern ie., the materials which are received first are also issued first and when the complete lot is done with them the further receipt is considered for issue.

Advantages :-

→ materials issued on the basis of purchases
→ It is very simple & easily understandable
→ closing inventory is valued at the current level prices
→ Mostly used in case of perishable goods
→ Better to follow in case of deflation than inflation to reduce the tax liability

Disadvantages :-

→ Difficult to record the return & rejected items
→ Regular purchases & issues can make this cumbersome
→ Due to frequent price changes comparison between similar job become difficult
→ If following during inflationary situation, the value of the closing stock will be higher there by tax liability will increase

(2) Last In First out method:-

Under this, most recently purchased goods are released first. This method operates in an inverse manner of Fifo method. The actual flow of inventory may differ.

Advantages:-

→ This method is suitable for the time period when price is rising

→ It is easy to understand

→ Since material is charged at the latest price level the cost of production is realistic

→ This leads to minimum unrealised gain

Disadvantages:-

→ Doesnot conform to the physical flow of goods

→ Difficult to calculate if there are frequent price changes

→ This method not supported by Income Tax Act or Accounting conventions

→ Inventory is not priced at current market price.

③ Simple Average price method:-

when the material are kept in store and they are homogeneous in nature, they tend to get mixed up with each other in a way that they lost their identity. This makes it rather difficult or almost impossible at times to identify the lot to which the material belongs and when the above was procured. So, for pricing purpose the average price is considered till the time the existing lot is totally consumed. Further when a new lot is purchased the price is re-computed again

$$\text{Average price} = \frac{\text{Total unit prices of all lots in stores}}{\text{Total no. of unit prices}}$$

Advantages:-

→ Simplicity of method makes it easily operational

→ The end result are often accurate when identical purchases are made at a similar rate

→ Even though the purchases are being made at an inflated or deflected rate, the prices are not affected much

Disadvantages :-

→ closing Inventory is not easily identifiable

→ As the material issued carries a different prices then the price at which it was procured There will arise certain profit or loss in this case

→ The end results may not be accurate where the purchasers are not similar & when there is fluctuation in prices

→ Number of units at level of price is ignored. Weighted is only given to the prices and not the quantity. This makes this method impractical

④ Weighted Average price method :-

Weighted Average price of the materials procured is considered and the quantity is duly taken into account. This method follows a practical approach as compared with other methods. The issue price calculated is a realistic one and in ratio of material procured. Every time a new lot is procured.

$$\text{WAP} = \frac{\text{Total cost of materials in stock}}{\text{Total quantity of materials in stock}}$$

Advantages :-

→ There is not much of critical work as the price of issue is constant till the expiry of current lot

→ method is simple & easy

→ when prices fluctuate the debits are set off as against the credits thus no profit & loss exist on account of issues

Disadvantages :-

→ In order to minimize clerical error, calculations are made to 4/5 decimal places which makes the job tedious

→ closing inventory is valued at per the calculations and not the current cost

→ The issues continue to be made at a fixed price even after the previous lot of stock has been totally consumed till the new stock comes in

(1) Prepare a store ledger account under FIFO and LIFO method of the following transaction

Purchases:-

- 1st Jan 2011 balance 50 units at Rs. 4 per unit
- 5th purchase order number 10, 40 units at Rs. 3 per
- 8th P.O. No 12, 30 units at Rs. 4 per unit
- 15th P.O. No 11, 20 units at Rs. 5 per unit
- 26th P.O. No 13, 40 units at Rs. 3 per unit

Issues:-

- Jan 10th material Requisition number 4, 70 units
- Jan 12th M.R. No. 5, 10 units
- Jan 20th M.R. No 6, 20 units
- Jan 24th M.R. No 7, 10 units
- Jan 27th shortage 5 units

FIFO

Date 2011	Particulars	Receipts			Issue			Balance		
		Quantity	Price	Amount	Quantity	Price	Amount	Quantity	Price	Amount
Jan 1	Balance	–	–	–	–	–	–	50	4	200
5	Received	40	3	120	–	–	–	50	4	200
								40	3	120
8	Received	30	4	120	–	–	–	30	4	120
10	Issue	–	–	–	50	4	200	20	3	60
					20	3	60	30	4	120
12	Issue	–	–	–	10	3	30	10	3	~~30~~
								30	4	120
15	Received	20	5	100	–	–	–	10	3	30
								30	4	120
								20	5	100
20	Issue	–	–	–	10	3	30	20	4	~~80~~
					10	4	40	20	5	100
24	Issue	–	–	–	10	4	40	10	4	40
								20	5	100
26	Received	40	3	120	–	–	–	10	4	40
								20	5	100
								40	3	120
27	Shortage	–	–	–	5	4	20	5	4	20
								20	5	100
								40	3	120
								65	–	240

LIFO

Date 2011	Particulars	Receipts			Issue			Balance		
		Qty	Price	Amount	Qty	Price	Amount	Qty	Price	Amount
Jan 1	Balance	—	—	—	—	—	—	50	4	200
5	Received	40	3	120	—	—	—	50	4	200
								40	3	120
8	Received	30	4	120	—	—	—	30	4	120
10	Issue	—	—	—	30	4	120	50	4	200
					40	3	120			
12	Issue	—	—	—	10	4	40	40	4	160
15	Received	20	5	100	—	—	—	40	4	160
								20	5	100
20	Issue	—	—	—	20	5	100	40	4	160
24	Issue	—	—	—	10	4	40	30	4	120
26	Received	40	3	120	—	—	—	30	4	120
								40	3	120
27	Shortage	—	—	—	5	3	15	30	4	120
								35	3	105
								65	—	225

Prepare a stock ledger account under simple average method

2019
Sep 1 opening stock 1200 units at 14/- each
5 Purchased 600 units at 15/- each
7 Issued 1000 units
13 purchased 1800 units at 16/- each
18 Issued 1200 units
21 Issued 400 units
26 purchased 800 units at 18/- each
29 Issued 1000 units

Simple Average method

Date	Particulars	Received			Issued			Balance		
		Qty	Price	Amount	Qty	Price	Amount	Qty	Price	Amount
2019										
Sep 1	Opening stock	—	—	—	—	—	—	1200	14	16,800
5	Received	600	15	9000	—	—	—	1800		25,800
7	Issued	—	—	—	1000	$\frac{14+15}{2}=14.5$	14,500	800		11,300
13	Received	1800	16	28,800	—	—	—	2600		40,100
18	Issued	—	—	—	1200	$\frac{14+15+16}{3}=15$	18000	1400		22,100
21	Issued	—	—	—	400	16	6,400	1000		15,700
26	Received	800	18	14,400	—	—	—	1800		30,100
29	Issued	—	—	—	1000	$16+18=\frac{34}{2}=17$	17000	800		13,100

Weighted Average Method

(Total cost of materials in stock / Total quantity of materials in stock)

Date	Particulars	Receipts			Issues			Balance		
		Qty	Price	Amount	Qty	Price	Amount	Qty	Price	Amount
2019 Sep 1	opening stock	–	–	–	–	–	–	1200	14	16,800
5	Received	600	15	9000	–	–	–	1800	14.3	25,740
7	Issued	–	–	–	1000	14.3	14,300	800	14.3	11,440
13	Receipts	1800	16	28,800	–	–	–	2600	15.47	40,222
18	Issued	–	–	–	1200	15.47	18,564	1400	15.47	21,658
21	Issued	–	–	–	400	15.47	6188	1000	15.47	15,470
26	Receipts	800	18	14,400	–	–	–	1800	16.59	29,862
29	Issued	–	–	–	1000	16.59	16,590	800	16.59	13,272

Working Notes:-

(1) First Issue price on 5th Sept

$$\frac{16800 + 9000}{1200 + 600} = \frac{25800}{1800} = 14.3$$

(2) Second Issue price on 18th Sep

$$\frac{11440 + 28800}{800 + 1800} = \frac{40240}{2600} = 15.47$$

(3) Third Issue price material not purchased

WAP = 15.47

(4) Fourth Issue price on 26th Sep

$$\frac{15470 + 14,400}{1000 + 800} = \frac{29870}{1800} = 16.59$$