1- **<u>What is inventory management? And why is it important?</u>**

Inventory Management is the direction or control of goods and materials stocked by an organization to provide continuity of production and customer satisfaction.

And it is important because firstly it will ensure the appropriate amount of product is at the right place, at the right time at an acceptable quality and at the least cost. So, we avoid stakeout.

Secondly, when inventory isn't managed well, you can also wind up with overstock -- too much of certain items. Overstock comes with its own set of problems. The longer an item sits unsold in inventory, the greater the chance it will never sell at all, meaning you'll have to write it off, or at least discount it deeply

Also, the right effective management allow as to reduce the costs and minimize stock-out costs.

2- **<u>What are the different types of stocks?</u>**

Inventory of materials occurs at various stages and departments of an organization. So we have 3 Types of stocks:
The first one is INPUT (Raw Materials) in this type Consumables required for processing. Eg : Fuel, Stationary, Bolts & Nuts etc. required in manufacturing
The second is: Process (Work in Process) that mean Semi Finished Production in various stages, lying with various departments like Production, WIP Stores, QC, Final Assembly, Paint Shop, Packing, Outbound Store etc.

The third type is: Output (Finished Goods) . These products are waiting to be delivered to end customers.

3- **<u>What are various types of costs for carrying stocks?</u>**

We have 4 types of costs for carrying stocks:

Unit cost: the price charged by the supplier for an item purchased, or the cost incurred by an organisation to purchase one unit of the item. It may be quite easy to find this by reviewing quotations or latest invoices from suppliers, but it is harder when there are a number of suppliers offering little different products, or offering diverse purchase conditions. If a business makes the product itself, it might be difficult to give a consistent production cost or decide a transfer price.

2. Reorder cost: the cost organisation incurs for placing repeat order. This might contain allowances for preparing an order, communication, receiving, delivery, checking, testing, utilization of equipment and follow-up. Sometimes, costs like quality control, transport, categorization and mobility of received goods are also included. In practice, the best approximation for a reorder cost usually comes from dividing the annual cost of the purchasing department by the number of orders sent out.

3. Holding cost: It is the cost of keeping one unit of stock for a unit period of time – for instance, the cost incurred by Air France to hold a spare engine in stock for one year. The apparent cost is tied- up money. This is either borrowed (there are interest payments) or it is cash that could be used somewhere else (there are opportunity costs). Other holding costs result due to storage space, loss, handling, and special treatment, for example refrigeration, insurance and administration. Another problem is obsolete material. It is the stock that was kept so long that it lost value, like obsolete spare parts or expired food Products having shorter life cycles, may have faster obsolescence. On the other hand, if your materials are being moved much faster through supply chains, then in many conditions the amount of obsolescence is declining. It is complex to give distinctive values for these, but a rule for annual costs as a percentage of unit cost, has: % of unit cost Cost of money 10–15 Storage space 2–5 Loss and obsolescence 4–6 Handling 1–2 Administration 1–2 Insurance 1–5 Total 19–35

4. Shortage cost: It occurs if a business is purchasing an item which is not available in stock anymore, or we can say, there is a shortage of that item. In the simplest case a retailer is unable to get direct profit from a sale. But the impacts of shortages are generally more widespread and may result in lost goodwill, loss of reputation, and loss of prospective future sales. Stock shortages can cause disturbance, rescheduling of production, re-timing of maintenance periods, and laying off workers. Shortage costs may also include payments for constructive action to remedy the scarcity, such as expediting orders, sending out urgent orders, paying for particular deliveries, storing partially finished goods or using more costly suppliers. It can be hard to get statistics for any inventory costs, but shortage costs are the major problem. These can also result in a number of intangible factors, like lost goodwill, that it is difficult to agree a rational value. Most organisations consider shortages expensive, and they generally like to avoid them. In other words, they are prepared to pay the comparatively lower costs of carrying costs to avoid the fairly higher costs of shortages. As you can see, this tends to increase the quantity of stock held, mainly when there is uncertainty.