**Unit -2**

**Specifications of Production Requirements**

**Material Requirement Planning(MRP):-**

It is a production planning and inventory control system. MRP is introduced in the 1970’s as computerized inventory control system that would calculate the demand for component items ,keep track when they are needed and generate work orders and purchase orders that take into account the lead time required to make the items in house or buy them from any supplier. MRP was quite revolutionary in its early days because it brought computers and systematic planning in the manufacturing function.

MRP translates a master schedule for end items into time phased requirements for sub assemblies, components and raw materials. The main objective of MRP is to ensure that material is available when required. One more objective is to maintain the lowest possible level of inventory.MRP does this by determining when component items are needed and scheduling them to be ready at that time ; no earlier and no later.

**The MRP Process:-**

Master Production Schedule(MPS)

Product Structure File(PSF) Material Requirement Planning Item Master File(IMF)

Planned Order Releases

Work Orders Purchase Orders Rescheduling Notices

**MPS: -** It specifies which end items or finished products, a firm is to produce, how many are needed

and when they are needed.

**PSF:** - It determines which component items needed to be scheduled. It contains bill of materials.

**IMF:-**It contains an extensive amount of information of every item that is produced, ordered or

Inventoried in the system.