

CPM+PERT+ CONSTRUCTION EQUIPMENTS

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* In today's world engineers are expected not only to provide innovative technical solution but also to do the skill full financial analysis of the project.

* Every project has one specified task, it starts at a specific point of time and is completed when all its objectives are achieved.

* Any project whether big or small has following three objectives.

* It must be completed in min^m elapsed time.

* It must be completed in min^m capital investment.

* It must utilize all the resources available judiciously for its completion.

* Matl:- Here material, manpower, money, equipment, space and time are being referred as resources.

* For successful completion of a project following entities are required:-

a) Material Resources.

b) Manpower resources.

* While technology deals with material resources, project management deals with synchronization of material with manpower resources.

* The total cost of project consist of material cost and construction cost. In order to minimise the material cost, design philosophy is changed. But in case of construction cost we have to deal with manpower, equipment, money space and time.

∴ Hence mathematical techniques like PERT and CPM are being used to minimise the construction cost.

Elements of Project Management:-

Planning:-

It is most important aspect of project management which deals with defining of the objectives of the project and identification of the resources required for the completion of the project.

Scheduling:-

Scheduling refers to the actual laying out of the activities in sequential and logical manners as required for the completion of the project. It also deals with the allocation of resources to different activities involved in the execution of the project.

Note:-

Both planning and scheduling is done before the actual start of the project.

3) Controlling:-

Controlling refers to the execution of planning & scheduling. It also deals with rescheduling of the activities of the activities in case of any deviation from the original plan.

Controlling is done during the execution of the project.

* Techniques of Project Management:-

a) Bar chart / Gantt chart