

$$\begin{aligned} \text{Total Float} &= 50 - 10 - 10 \\ &= \underline{30 \text{ days}} \end{aligned}$$

at

the amount of time an activity can be delayed without affecting the commencement of a subsequent activity at its earliest start time, but may affect float in subsequent activity.

$$\text{Free Float} = \text{Earliest Head time} - \text{Earliest Tail time} - \text{Activity Duration}$$

$$\text{Free Float} = 40 - 10 - 10$$

20 days

## ident float

The amount of time an activity can be delayed when all preceding activities are started as late as possible and all succeeding activities completed as early as possible is called the float of the activity. Independent float therefore does not affect the float of either preceding or subsequent activities.

independent float = Earliest Head time – Latest Tail time – Activity Duration

independent float = 40 - 20 - 10

**= 10 days**

mination purposes the most important type of float is Total Float because it is tied with the overall project duration. On occasions the term 'Float' is used to mean Free Float. In such cases assume that Total Float is required.

total float can be calculated separately for each activity but it is often useful to calculate total float over chains of non-critical activities between critical events. For example in Figure 23/4 the only non-critical chain of activities is C, E for which the total float calculation can be made:

	Time required	Time available	Total float over chain = 2 days
Non-critical chain C F	3 + 1 = 4 days	7 - 1 = 6 days	

one of the 'chain float' is used up on one of the activities in a chain it reduces the time available to other activities in the chain.

ative terms for Earliest Head Time and Latest Headtime are Earliest Finishing (EFT) and Latest Finishing Time (LFT), respectively.

## float calculations

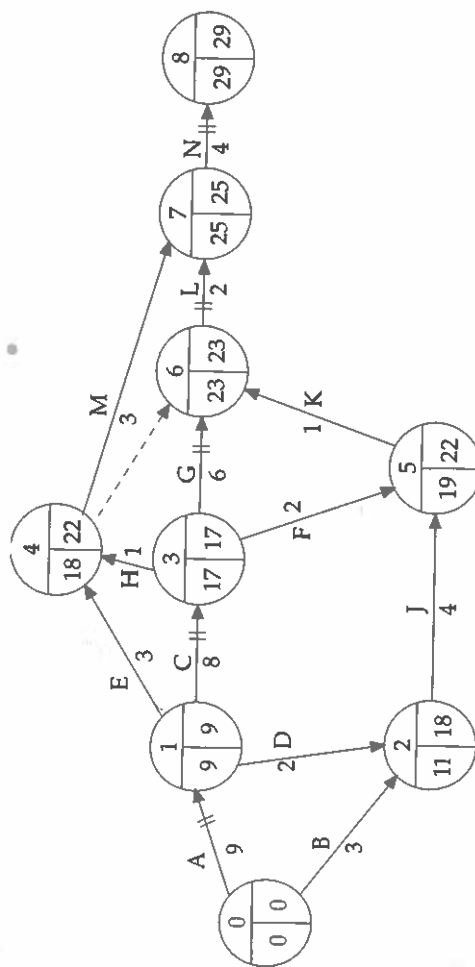
Example used in the preceding chapter is reproduced below with the addition of iterations. It is required to find the critical path and all floats.

P	-	Prepare Boat Shed	3
C	A	Design Mast and Mast Mount	8
D	A	Obtain Hull	2
E	A	Design Sails	3
F	C	Obtain Mast Mount	2
G	C	Obtain Mast	6
H	C	Design Rigging	1
J	B, D	Prepare Hull	4
K	E, J	Fit Mast Mount to Hull	1
L	E, H, G, K	Step Mast	2
M	E, H	Obtain Sails and Rigging	3
N	L M	Fit Sails and Rigging	4

### Solution

The network is shown in the normal manner in Figure 23/6 from which it will be seen that the critical path is:

Activities A, C, G, L, N with a duration of 29 days.



**Project XXX network. Figure 23/6**