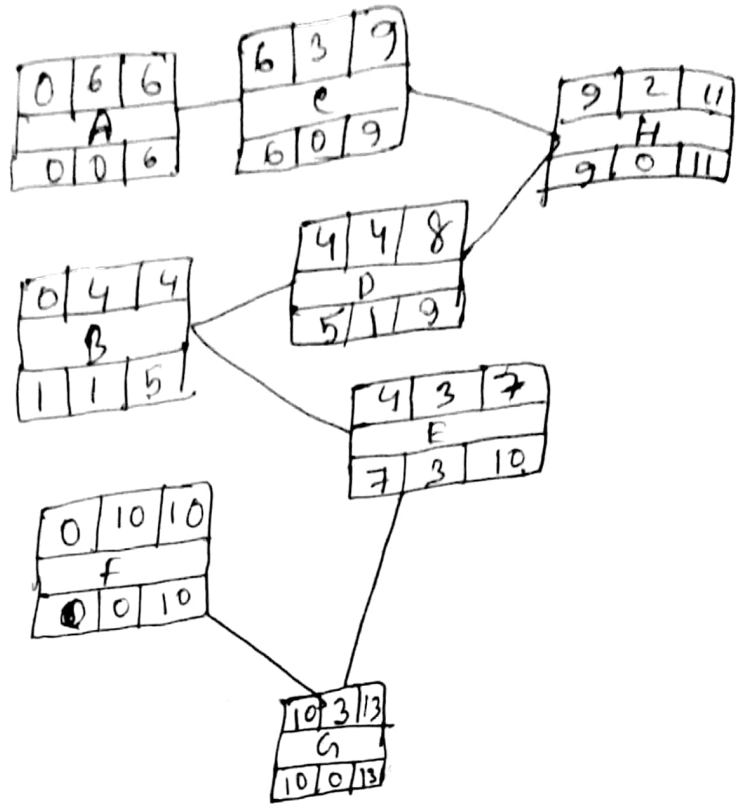


13. (a) Calculating the earliest start and completion dates of the activities using the Forward Pass of the Critical path method for the following project details. Draw an Activity Network at the completion of the forward pass. Calculate the steps followed in the calculation. (16)

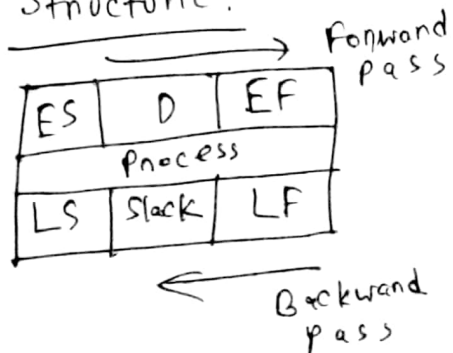
Activity-Label	Activity Description	Duration (weeks)	Precedents
A	Hardware selection	6	
B	Software design	4	
C	Install hardware	3	A
D	Code and test software	4	B
E	File take on	3	B
F	Write user manuals	10	
G	User training	3	E, F
H	Install and test systems	2	C, D

Or

Process	Precedents	Duration
A	—	6
B	—	4
C	A	3
D	B	4
E	B	3
F	—	10
G	E, F	3
H	C, D	2



Structure:



$$EF = ES + D$$

$$LF - EF = \text{slack}$$

$$LF - D = LS$$

Hence, check which ~~node~~ path's all node's slack is zero. That's the critical path.

Hence, $A \rightarrow C \rightarrow H$

or, $F \rightarrow G$