

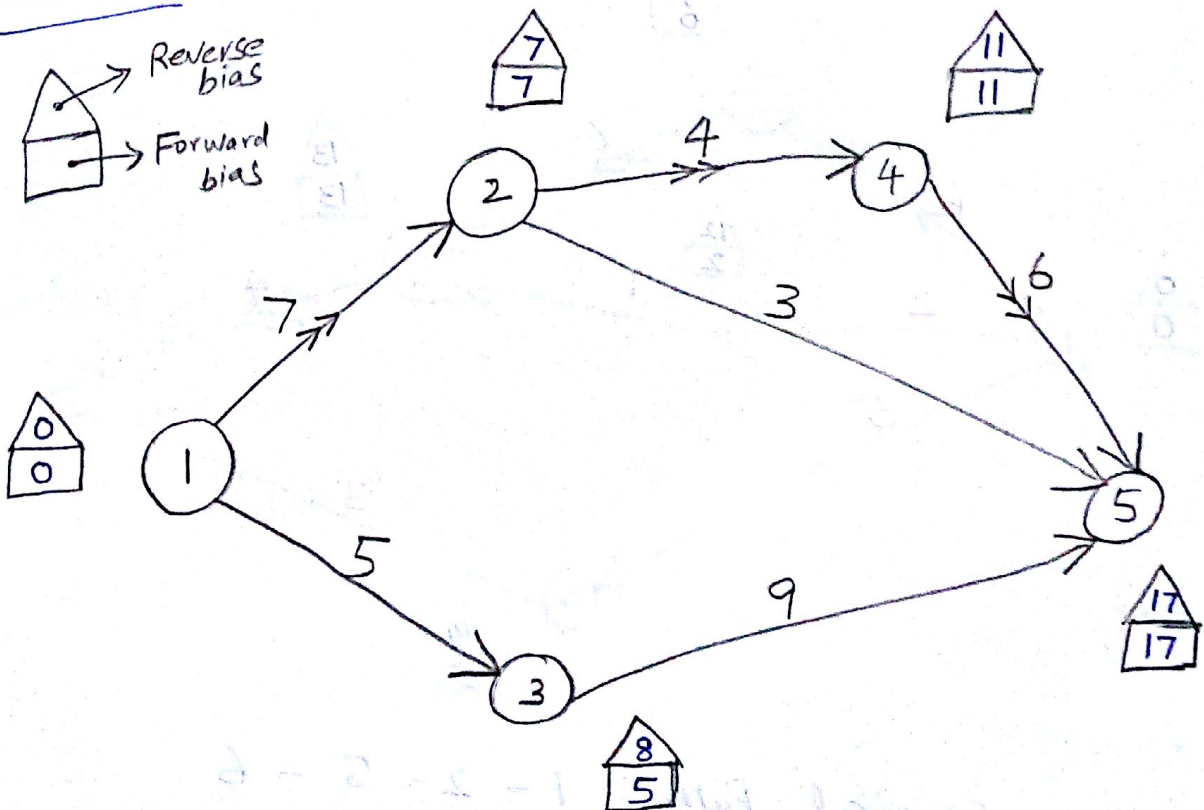
PERT

① Draw a Project network and determine the critical path.
(in months)

Activity	Optimistic time (t_o)	most likely time (t_m)	Pessimistic time (t_p)	Expected duration (t_e)
1-2	5	7	9	7
1-3	2	5	8	5
2-4	1	4	7	4
2-5	2	3	4	3
3-5	6	9	12	9
4-5	3	6	9	6

$$t_e = \frac{t_o + 4t_m + t_p}{6}$$

Network:

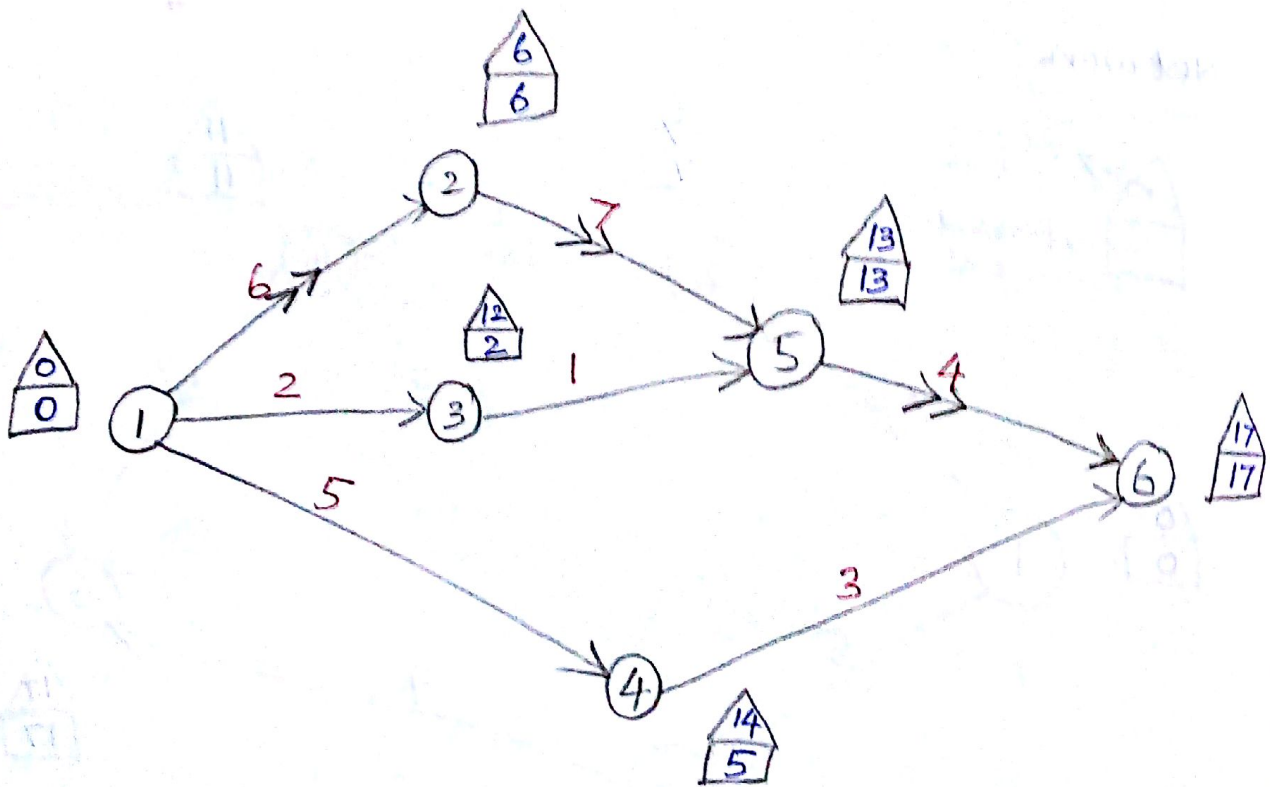


Critical Path : 1 - 2 - 4 - 5

Duration = 17 months

② Draw a Project network and determine the critical path (Index)

Activity	t_o	t_m	t_p	$t_e = \frac{t_o + 4t_m + t_p}{6}$
1-2	5	6	7	6
1-3	1	1	7	2
1-4	2	4	12	5
2-5	3	6	15	7
3-5	1	1	1	1
4-6	2	2	8	3
5-6	1	4	7	4



Critical Path: 1 - 2 - 5 - 6

Duration = 17 days