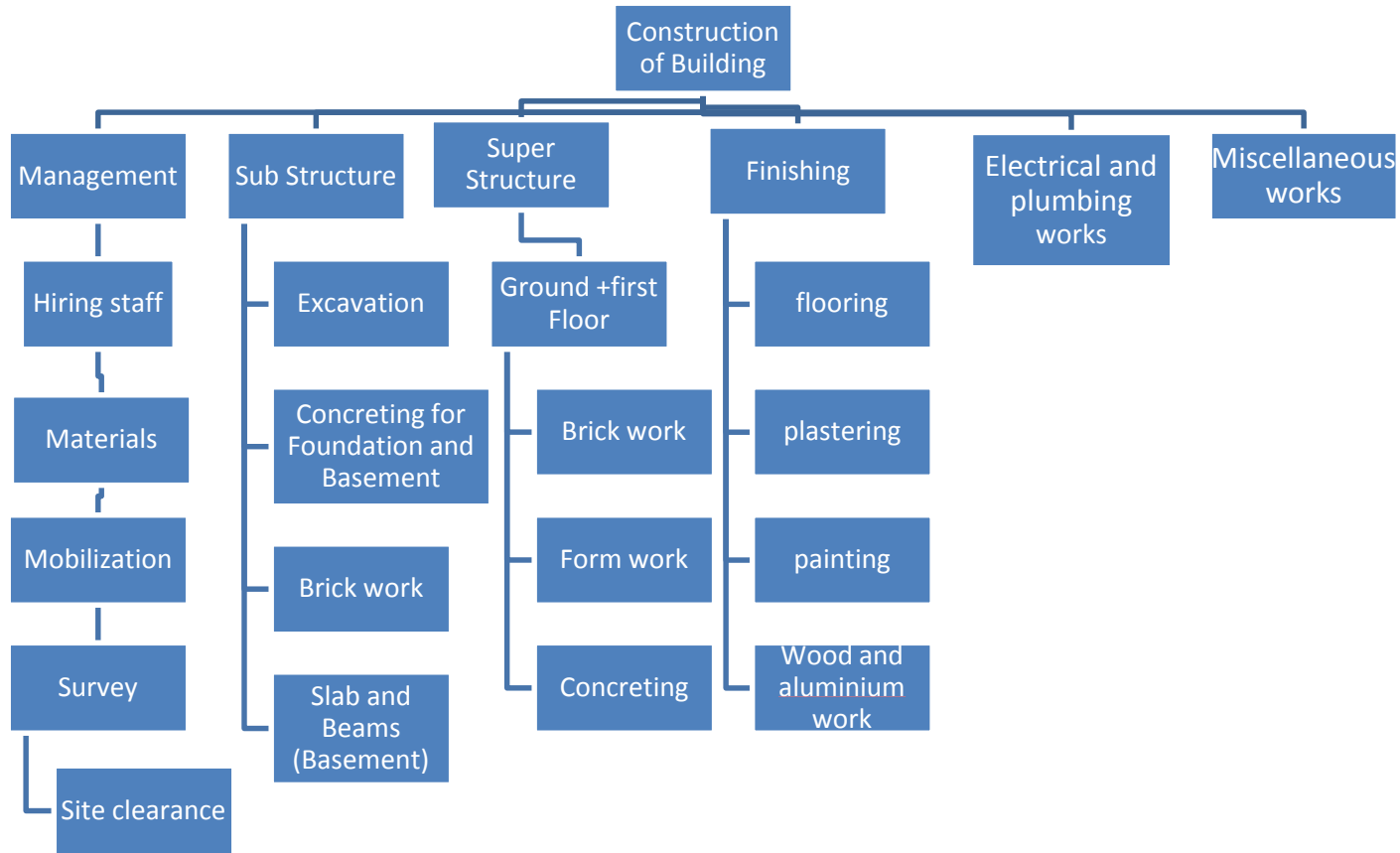


Name : Irfan ullah
ID : 7765
Section : B
Semester : 8th
Exam : Midterm
Subject : Construction Management
Instructor : Engr. Muhammad Zeeshan Ahad

a) Activity list of a two story building

1. Survey
2. Mobilization
3. Grubbing of site
4. Layout and Excavation
5. Foundation And columns
6. Brick masonry Walls
7. Formwork
8. Concreting (beams and Slab)
9. Curing
10. Flooring
11. Wood work
12. Plumbing and sanitary work
13. Electrification
14. Finishing
15. Miscellaneous

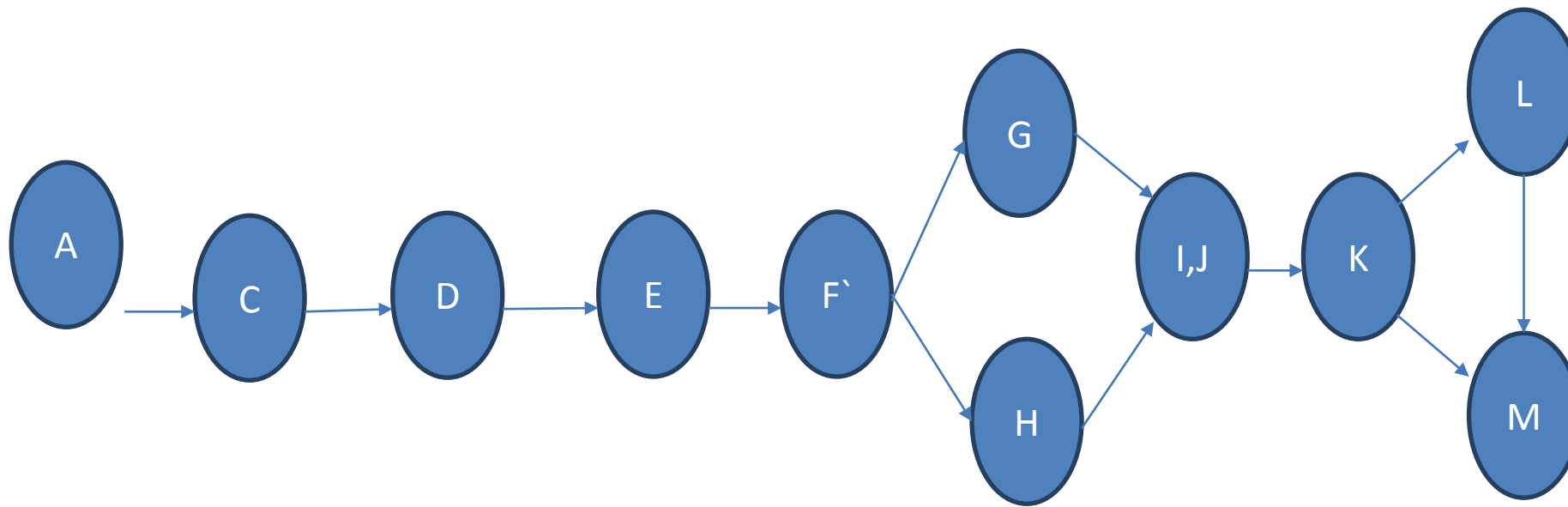
Work Breakdown structure of building



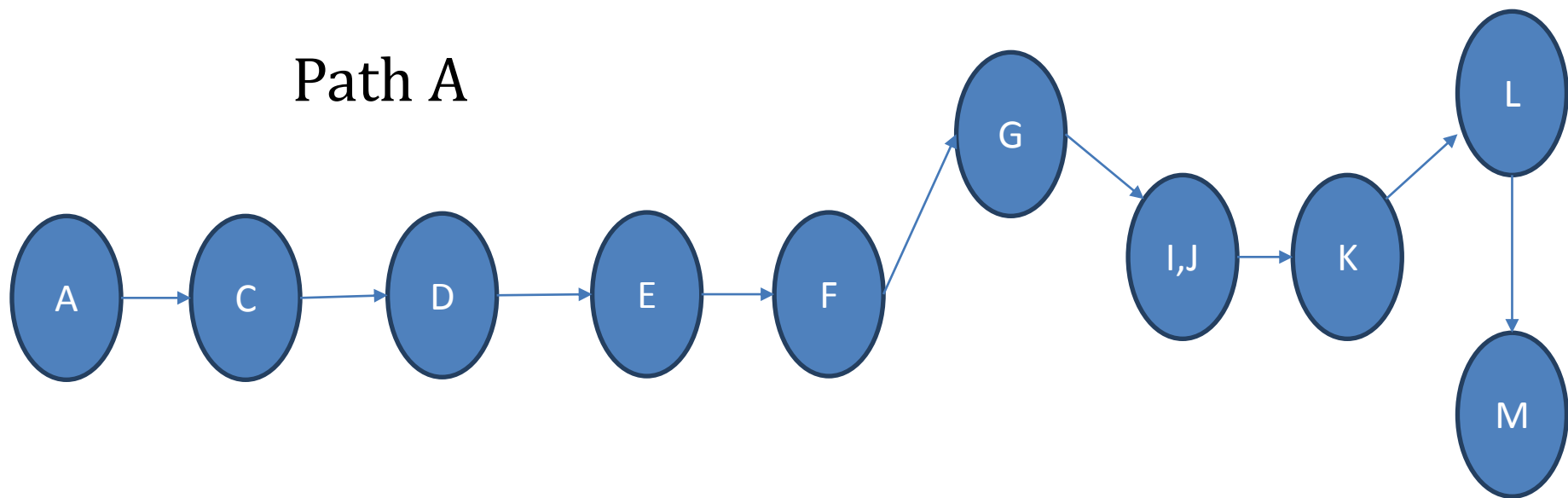
Q.03 Critical path Method of the project

Activity		Predecessors	Duration in weeks
Survey	A		1
Mobilization	B		1
Grubbing of site	C	A	1
Layout and Excavation	D	C	2
Formwork	E	D	4
Foundation and column	F	E	3
Concreting (beams and Slab)	G	F	3
Brick work	H	F	3
Plumbing and sanitary work	I	G,H	2
Electrification	J	G,H	2
Finishing	K	I,J	3
Flooring	L	k	2
Wood work	M	K,L	3
Miscellaneous	N		3

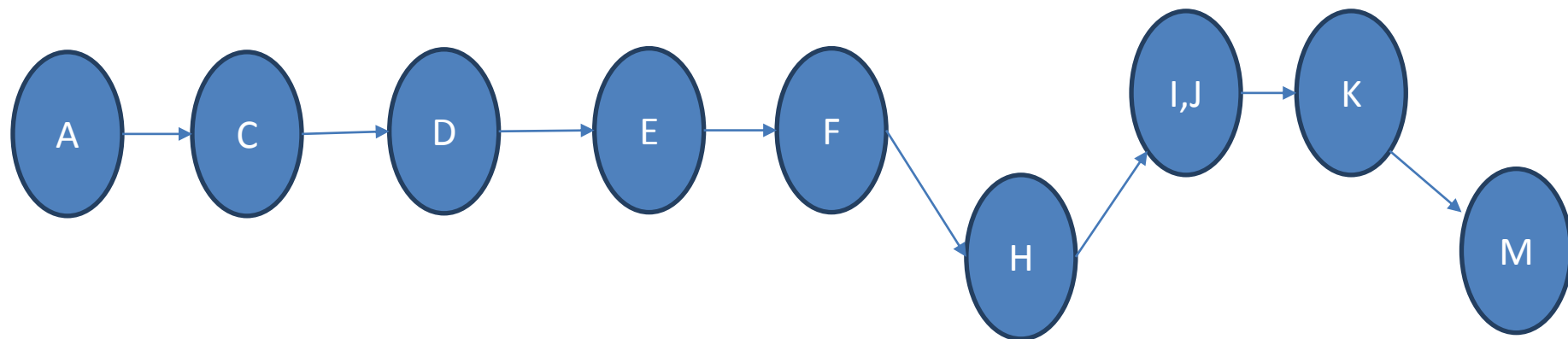
Precedence Diagram



Path A



Path B



There are two paths of our project path A and path B

Path A (ACDEFGHIJKLM) having 26 weeks

Path B (ACDEFHIJKM) having 24 weeks

So the critical path of our project is path A which has more time

Q.04 provide maximum time taken by project...

0	A	1	1	C	2	2	D	4	4	E	8	8	F	11	11	G	14	14	I,J	18	18	K	21	21	L	23
0	1	1	1	1	2	2	2	4	4	4	8	8	3	11	11	3	14	14	4	18	18	3	21	21	2	23
												11	H	14	11	3	14				23	M	26	23	3	26

As according to forward pass and backward pass the maximum time for our project is 26 weeks.

Q.05 provide Slack time for the activities if any....

Slack = late finish – early finish

$$A = 1 - 1 = 0$$

$$C = 2 - 2 = 0$$

$$D = 4 - 4 = 0$$

E = 8 - 8 = 0 and so on all values comes zero so no slack

Slack = late start – early start

$$A = 0 - 0 = 0$$

$$C = 1 - 1 = 0$$

$$D = 2 - 2 = 0$$

$$E = 4 - 4 = 0$$

And so on all values comes zero so no slack.

Q.02 Time line of the building project

