



NAME: M. ASIM KHAN

CLASS: BE(C)

SUBJECT: CONSTRUCTION MANAGMENT

SECTION: A

ID: 7708

LECTURER: ENGR.ZEESHAN AHAD

ASSIGNMENT

ID: 7708

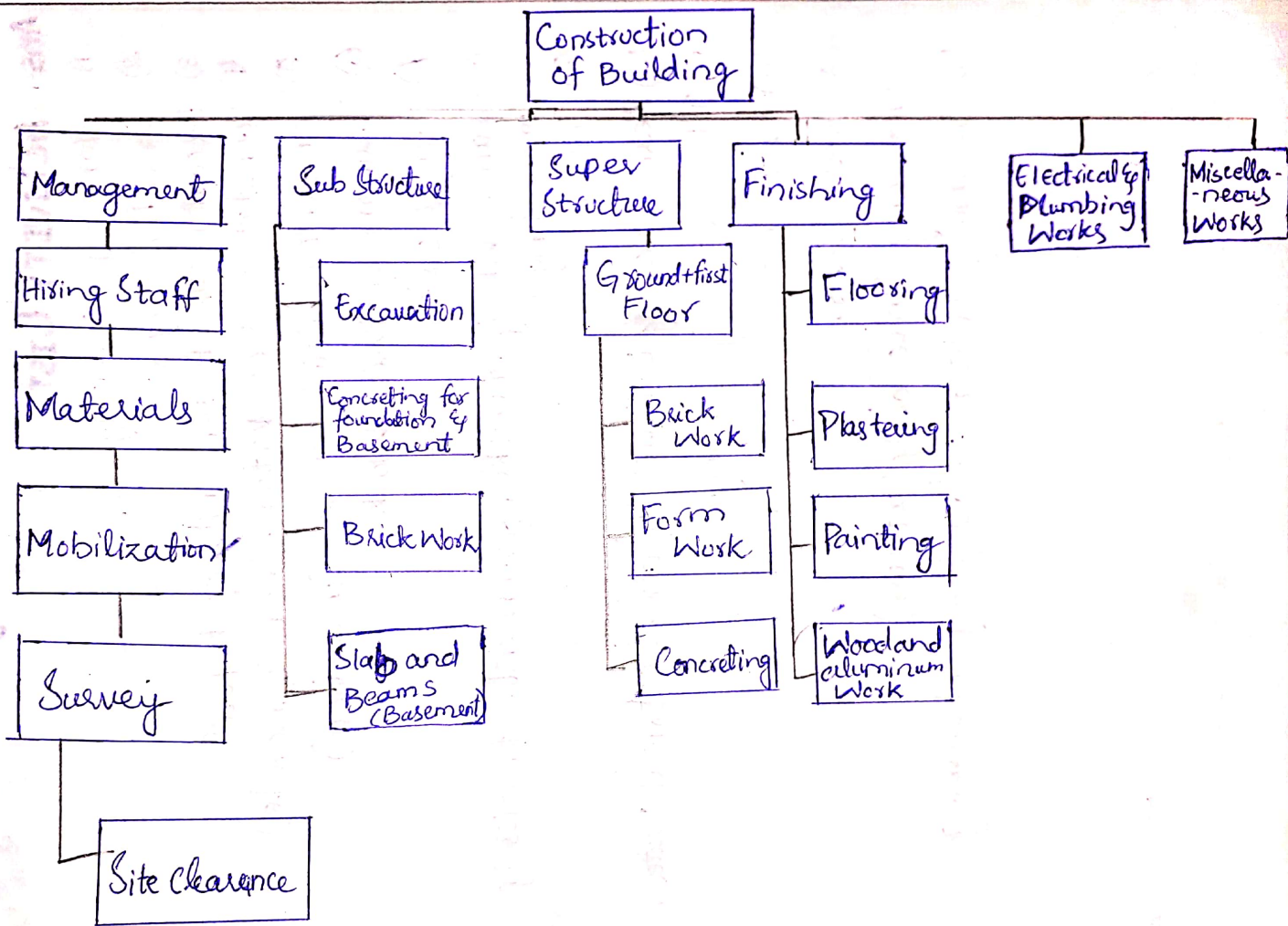
Q1) Activity list of a two story building and work breakdown structure for the Project.

Ans ACTIVITY LIST

- 1) Planning & Survey
- 2) Grubbing of site
- 3) Excavation for Basement & layout
- 4) Foundation (Excavation, lean concrete)
- 5) Foundation (Reinforcement, Concreting)
- 6) Column & Brick Work
- 7) Formwork
- 8) Beam, Slab & Stair (Reinforcement, Utilities & concreting)
- 9) Curing
- 10) Beams, Slabs & Utilities (Sewer, Electrical, Water & Gas)
- 11) Plastering & Curing
- 12) Flooring
- 13) Wood Work
- 14) Painting (Interior & Exterior)
- 15) Finishing (Electrical, lighting & Plumbing)

ID#7708

WORK BREAK DOWN STRUCTURE OF BUILDING



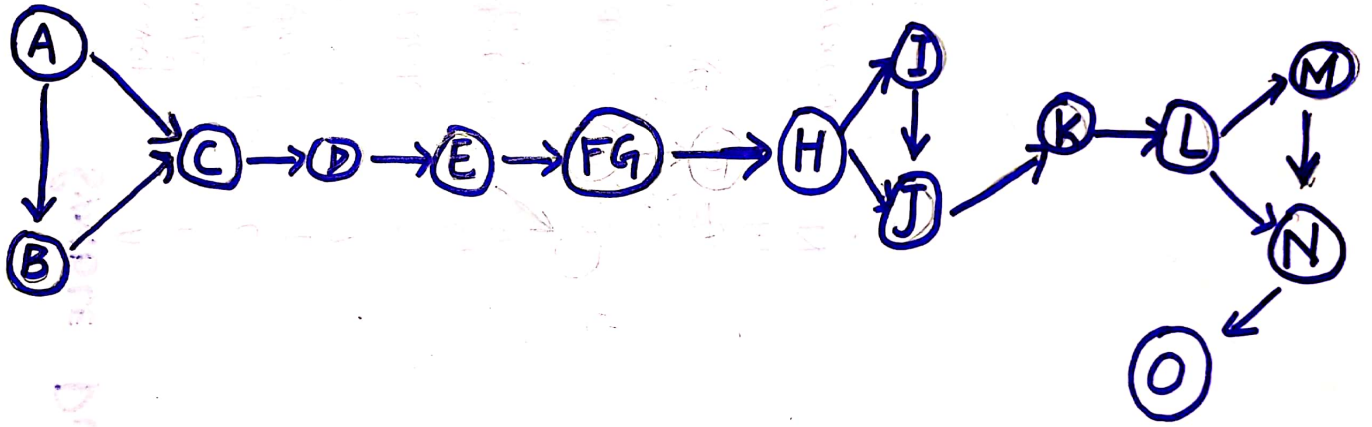
b) TIME LINE FOR ACTIVITY COMPLETION ID=7708

TASK MODE	TASK NAME	DURATION	START	FINISH	PREDECESSOR
1	Planning & Survey	1 week	16/4/20	22/4/20	
2	Site Preparation	0.5 weeks	23/4/20	27/4/20	1
3	Excavation for Basement & Layout	2 weeks	27/4/20	11/5/20	2
4	Foundation (Excavation, lean concrete)	0.5 weeks	11/5/20	13/5/20	3
5	Foundation (Reinforcement concreting)	0.7 weeks	14/5/20	19/5/20	4
6	Column and Brick Work	2.5 weeks	19/5/20	4/6/20	5
7	Form Work	2.5 weeks	6/6/20	23/6/20	6
8	Beam Slab & Stair (Reinforcement, Utilities & plastering)	2 weeks	23/6/20	7/7/20	7
9	Curing	1 week	7/7/20	14/7/20	8
10	Utilities (sewer, Electrical, Water & Gas)	2 weeks	14/7/20	28/7/20	9
11	Plastering & Curing	3 weeks	28/7/20	18/8/20	10
12	Floorsing	2 weeks	18/8/20	1/9/20	11
13	Wood Work	4 weeks	1/9/20	29/9/20	12
14	Painting (Interior & Exterior)	2 weeks	29/9/20	13/10/20	13
15	Finishing (Electrical, lighting & Plumbing)	1 week	13/10/20	20/10/20	14

C) Prepare a critical Path (CPM) of the Project.

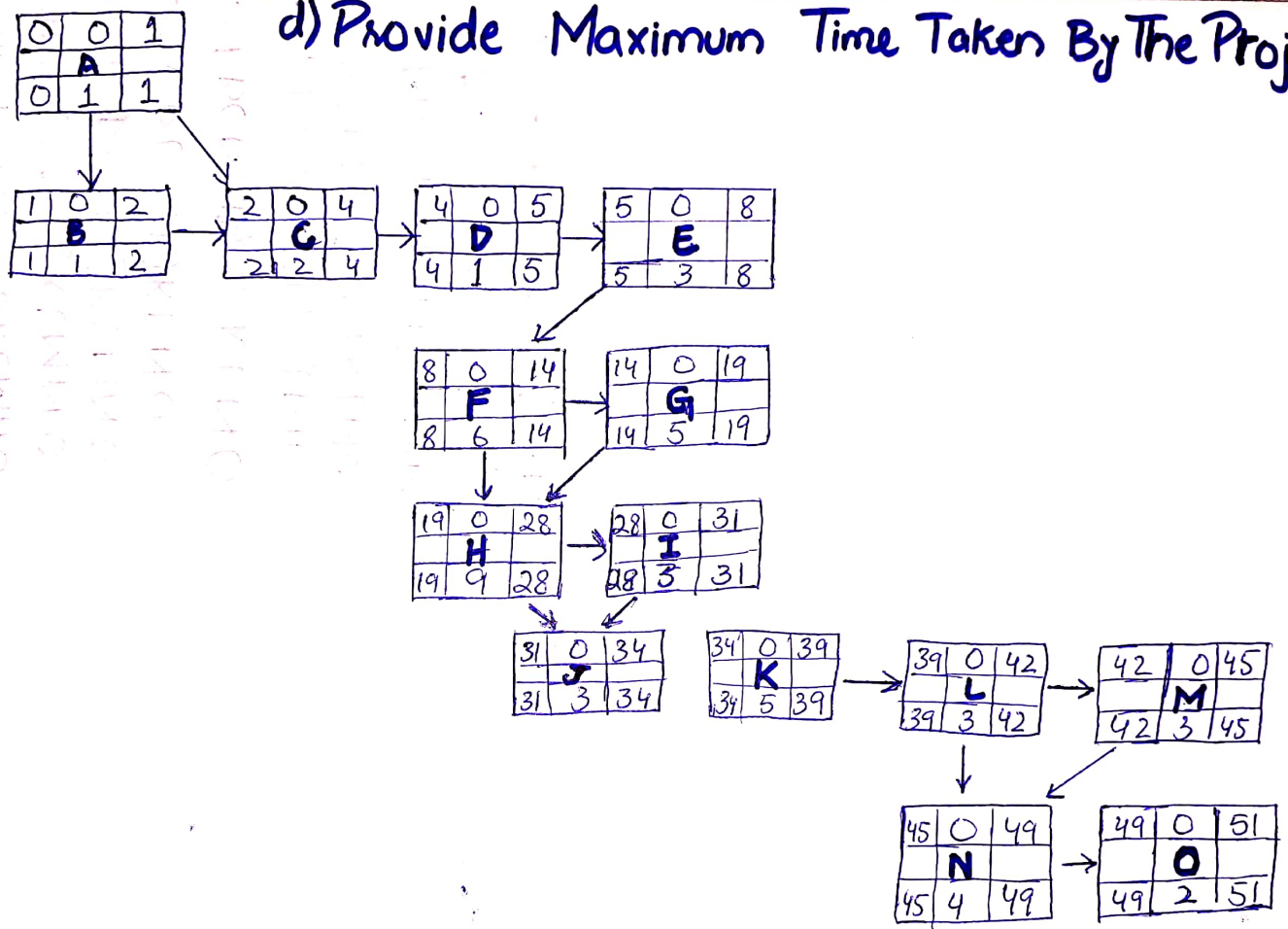
ACTIVITY	SYMBLE	DUR(WKS)	Pre.d
1 Planning & Survey	A	1	
2 Grubbing of Site	B	1	A
3 Excavation for basement & layout	C	2	A, B
4) Foundation (Excavation, lean concrete)	D	1	C
5 Foundation (Reinforcement, concreting)	E	3	D
6 Column & Brick Work	F	6	E
7 Form work	G	5	F
8 Beam, Slab & Stairs (Reinforcement, Utilities & Concreting)	H	9	F, G
9) Curing	I	3	H
10 Utilities (Sewer, Electrical, Water & Gas)	J	3	H, I
11 Plastering & Curing	K	5	J
12 Flooring	L	3	K
13 Wood work	M	3	L
14 Painting (Interior & Exterior)	N	4	L, M
16 Finish (Electrical, lighting & Plumbing)	O	2	N

ID=7708



807E:AT

d) Provide Maximum Time Taken By The Project



As According to forward Pass and backward pass^{the maximum} time take our project is 21 weeks

→ ABCDEFGHIJKLMNO

→ ACDEFGHIJKLMNO

→ ABCDEFHIJKLMNO

→ ACDEFHJKLNO

→ ABCDEGHIJKLNO

→ ABCDEFHJKLMNO

→ ACDEFGHJKLNO

→ ABCDEFHIJKLNO

→ ACDEFHIJKLNO

→ ACDEFGHIJKLNO

$$\rightarrow \text{Path 1} = 1+1+2+1+3+6+5+9+3+3+5+3+3+4+2$$

$$\rightarrow \text{Path-2} = 1+2+1+3+6+9+3+5+3+3+4+2$$

$$\rightarrow \text{Path-3} = 1+2+1+3+6+5+9+3+3+5+3+3+4+2$$

$$\rightarrow \text{Path-4} = 1+2+1+3+6+9+3+5+3+4+2$$

$$\rightarrow \text{Path-5} = 1+1+2+1+3+6+5+9+3+5+3+4+2$$

$$\rightarrow \text{Path-6} = 1+1+2+1+3+6+9+3+5+3+3+4+2$$

$$\rightarrow \text{Path-7} = 1+1+2+1+3+6+9+3+3+5+3+4+2$$

$$\rightarrow \text{Path-8} = 1+1+2+1+3+6+9+3+3+5+3+4+2$$

$$\rightarrow \text{Path-9} = 1+2+1+3+6+9+3+3+5+3+4+2$$

$$\rightarrow \text{Path-10} = 1+2+1+3+6+9+3+3+5+3+4+2$$

$$1=51 \quad 2=50 \quad 3=42 \quad 4=39 \quad 5=45$$

$$6=43 \quad 7=44 \quad 8=43 \quad 9=42 \quad 10=47$$

E Provide Slack time for the activities

Slack = late finish - early finish

$$A = 1 - 1 = 0$$

$$C = 2 - 2 = 0$$

$$D = 4 - 4 = 0$$

E = 8 - 8 = 0 and soon all becomes zero